PHILOSOPHY

THE JOURNAL OF THE ROYAL INSTITUTE OF PHILOSOPHY

VOL. XXXI. No. 116 JANUARY 1956

THOMAS HOBBES'S DOCTRINE OF MEANING AND TRUTH

DOROTHEA KROOK

IT is generally acknowledged that Hobbes's radical scepticism is intimately connected with his nominalism, and that his nominalism in turn rests upon the doctrine of meaning and truth set out in its best-known version in Chapters 4 and 5 of *Leviathan*.[1]

The connexion between Hobbes's scepticism and nominalism is indeed sufficiently attested by the pervasive influence of his nominalism upon his whole doctrine of commonwealth in *Leviathan*, of which the moral doctrine of 'just' and 'unjust,' the political doctrines of 'law' and 'covenant,' and the political-theology in Part III ('Of Christian Commonwealth') are the main constituent parts. The view that all law is positive law, which is the central doctrine of Hobbes's theory of commonwealth, rests upon the anterior view that all moral values—right and wrong, good and bad, just and unjust—are entirely artificial, entirely 'by institution.' ("Where there is no common power, there is no law: where no law, no injustice"); and that view of moral values depends directly upon his nominalistic doctrine of meaning and truth. Again, the view that the Scriptures are meaningless black marks on paper until they have been interpreted, which is the principle upon which the extraordinary reinterpretations of the Scriptures in Part III of *Leviathan* are conducted, derives by a similar logical necessity from his nominalistic doctrine of meaning and truth—that all meaning and truth are "constituted

[1] The references are to the following editions of the texts: (i) *Elements of Law* (*E.L.*), Tönnies' edition, Cambridge, 1928; (ii) *Leviathan* (*L.*), Michael Oakeshott's edition, Basil Blackwell, 1946; (iii) *Of Logic and Computation* (*L.C.*), Book I of *De Corpore*, Vol. I of Sir William Molesworth's 11-volume edition of Hobbes's *English Works*, 1839. All italics in passages quoted indicate my emphasis, except where it is stated that they are Hobbes's own.

arbitrarily by the inventors of speech."[1] And the very theory of the generation of Leviathan "by covenant of every man with every man," the view, that is, that the life of commonwealth can be created and maintained in no other way than by the voluntary incorporation of all men into that one great artificial man Leviathan—this, pre-eminently, presupposes a view of man's nature that reduces the human universe to a thoroughly nominalistic "universe of disconnected singulars."

In view of these evidences of the nominalistic character of Hobbes's moral, political and religious thought, it is perhaps worth attempting a fresh account of the doctrine of meaning and truth that is the philosophical foundation of his nominalism. My object in this paper is to show, first, that Hobbes's nominalistic doctrine of meaning and truth may be viewed as a function of his profoundly philosophical 'language-consciousness'—his consciousness, that is, of the crucial relation between 'language' and philosophy; then to show how this 'language-consciousness' enters into and affects both his theory of knowledge ('science' in the comprehensive seventeenth-century sense) and his theory of physics ('natural philosophy,' or 'science' in the narrower, modern sense); and, finally, to indicate how that language-consciousness is exhibited in two typical instances of Hobbes's nominalistic analysis of concepts, one political, the concept of 'sedition,' the other religious, the concept of 'God.'

I. Nominalism and Language

(i) *Two types of language-theory*

There is a vital distinction to be made between two types of language-theory to be found in Hobbes's writings. These are frequently confused, and when they are confused the full force and interest of Hobbes's philosophical preoccupation with language is likely to be missed.

The first of these language-theories treats 'language' as a system of *signs* (sounds in the air or marks on paper), functioning in the first instance as 'mnemonic marks' and afterwards as media of communication; and this theory has the character of a quasi-scientific, psycho-physiological theory of language, a theory of 'sign-functioning.' The other treats 'language' as *discourse*, and affirms that meaning and truth are properties of 'language' in this sense ("Truth, and a true proposition is all one"); and this is Hobbes's strictly philosophical theory of language, his doctrine of meaning and truth. The first theory offers a psycho-physiological explanation of the sign-using behaviour of men, the human activity of 'signifying' by means of sounds in the air or marks on paper. As such, it is properly a part of Hobbes's

[1] *L.C.*, 3.9.

materialist theory of knowledge: the activity of 'signifying' is explained as (in the first instance) one form, or modification, of matter-in-motion—a special case of 'adding' one patch of matter-in-motion, a sound in the air or mark on paper, to another patch of matter-in-motion, a sense-experience, either present or 'decaying.' (This in effect is Hobbes's definition of 'Understanding,'[1] which is at the same time his primary definition of 'signification.' The account of the functioning of signs as 'mnemonic marks' and for communication depends upon this primary definition of signification.) The other theory of 'language,' the doctrine of meaning and truth, is the logical foundation of Hobbes's nominalism. It views language-signs, not as psycho-physiological entities, but as discursive entities, as *meanings*; and is concerned, not to explain the functioning of language-signs as 'mnemonic marks' or for purposes of communication, but (*a*) to classify the varieties of names ('appellations') and the varieties of sentences ('propositions'), (*b*) to define 'true,' 'false,' 'error,' 'absurdity' as properties of language or discourse, and (*c*) to define knowledge or 'science' as a system of propositions, that is a system of 'language' or discourse.

It is true that in Hobbes's philosophy the second theory of language, the theory of language as discourse, presupposes the first theory, the psycho-physiological theory of sign-functioning. But the connection is not logically necessary—the Hobbesian doctrine of meaning and truth is compatible with other different theories of sign-functioning; and the psycho-physiological theory of sign-functioning as such neither presupposes nor entails the nominalistic doctrine of meaning and truth. For this reason the two theories ought to be kept rigidly apart in any discussion of Hobbes's 'language-consciousness.'

(ii) *"Truth, and a true proposition, is all one"*

Hobbes's nominalistic doctrine of the universal is well known. For Hobbes, universals are names, and nothing but names, and it is a great, and persistent, error (he insists repeatedly) to suppose that they are, in any sense, 'things.' "There [is] nothing in the world universal but names; for the things named are every one of them individual and singular."[2] But (the argument continues) true knowledge or 'science,' as distinct from mere 'experience' ('particulars'), is *of* universals; therefore, of names, or language. ". . . Experience concludeth nothing universally," he writes in *Elements of Law*,[3] "that is to say, we cannot from experience conclude, that any thing is to be called just or unjust, true or false, nor any proposition universal whatsoever, *except it be from remembrance of the use of names imposed arbitrarily by men*. . . ." It is through this link between his nominalistic

[1] *L.*, Ch. 3.
[2] *L.*, I. 4 ("Names, proper and common").
[3] *E.L.*, I. 4.11.

definition of the universals as 'names,' and his definition of knowledge or 'science' as 'of universals,' that Hobbes's doctrine of meaning and truth emerges as a doctrine of 'language' or discourse.

Hobbes's definition of the crucial term 'proposition' (to begin with) is uncompromisingly linguistic. It is not defined as a 'judgment' or 'belief' concerning a (non-linguistic) fact, or state of affairs, but as a *'meaning'*: a proposition is

> . . . a speech consisting of two names copulated, by which he that speaketh signifies he conceives that latter name to be the name of the same thing whereof the former is the name; or (which is all one) that the former name is comprehended by the latter.[1]

The definition of truth is so intimately connected with the definition of meaning ('proposition') that it is already present in the passage just quoted. (In the *Leviathan* version, indeed, they are not separated at all, but are run together into a single definition of 'true proposition.'[2]) And what emerges from this definition of truth is that, for Hobbes, all truth is 'analytic.' For what establishes the truth of a proposition is the purely 'syntactical' relation of 'entailment' or 'implication' between predicate and subject: if the predicate implies (entails, 'contains') the subject, the proposition is true, if it does not imply or entail the subject, the proposition is false:

> In every proposition, be it affirmative or negative, the latter appellation either comprehendeth the former, as in this proposition, charity is a virtue, the name of virtue comprehendeth the name of charity (and many other virtues besides), and then is the proposition said to be *true* or *truth*: for, truth and a true proposition, is all one. Or else the latter appellation comprehendeth not the former; as in this proposition, every man is just, the name of *just* comprehendeth not every man; for *unjust* is the name of the far greater part of men. And then the proposition is said to be *false*, or *falsity*: falsity and a false proposition being the same thing.[3]

All truth, then, is 'analytic': that is to say, it is a property of 'language,' of propositions, statements, utterances, 'words'—always of linguistic entities, never of 'things,' or non-linguistic entities. "For true and false are attributes of speech, not of things. And where speech is not, there is neither truth nor falsehood. . . ."[4] That is why (Hobbes argues) the man born deaf and dumb can never arrive at the universally true proposition "The three angles of a triangle are equal to two right angles." He can by measuring—that is, by (sense)-'experience'—discover this to be a property of many particular triangles; but, being without the power of speech and therefore without the power of 'discourse of reason,' he is incapable of forming *general* ('universal') conceptions. And since the

[1] *L.C.*, 3.2.
[2] *L.*, I. 4 (p. 21).
[3] *E.L.*, I. 5.10. Hobbes's emphasis.
[4] *L.*, I. 4 (p. 21).

power to generalize is for Hobbes the power of 'speech' itself, the man who *has* the power of speech thereby has the power to recognize that the proposition "the three angles of a triangle," etc., is contained in the *definition* of triangle ("A triangle has three sides and three angles"), and is therefore entailed by that definition; and because it is entailed by it, that is, follows from it "by necessary connexion of terms," the proposition is universally true.[1]

(iii) *'Science,' what*

From this doctrine of meaning and truth as properties of 'speech,' we pass directly to Hobbes's account of definition, and from this to his theory of knowledge or 'science,' by the following steps:

> All truth is 'analytic': all true propositions are 'analytically' true: all definitions (being 'affirmations') are propositions: therefore they are 'analytically' true; that is, they are 'nominal.' Thus all definition is 'nominal' definition.

This account of definition follows from Hobbes's definitions of 'proposition' and 'truth,' which, in turn, follow from his nominalistic definition of 'universal.'

> All true knowledge or 'science' (the argument continues) is demonstration. But to demonstrate is to draw out the consequences of definitions, a 'demonstration' being "a syllogism or series of syllogisms, derived and continued, from the definitions of names, to the last conclusion."[2] And definitions are always 'nominal,' that is, statements of the meanings of words; therefore, 'to demonstrate' is to draw out the full meaning of our 'primitive' propositions, or definitions. But this is to create a system of propositions, that is, a language-system, or system of discourse, composed of primitive propositions (the 'first' definitions, or 'axioms') and other propositions derived from them (the 'consequences' of those first definitions or axioms): in other words, a system of 'analytically' true-or-false propositions. 'Science,' then, which is 'demonstration,' is the creation of a language-system, or system of discourse, composed of propositions which are analytically meaningful and analytically true or false.

> There be two sorts of knowledge, whereof the one is nothing else but sense, or knowledge original . . . and remembrance of the same; *the other is called science or knowledge of the truth of propositions, and how things are called,* and is derived from understanding. Both of these sorts are but experience; the former being the experience of the effects of things that work upon us from without; and *the latter the experience men have of the proper use of names in language.*[3]

[1] *L.*, I. 4 (p. 20). [2] *L.C.*, 6.16. [3] *E.L.*, I. 6.1.

(iv) *'Metaphysical nominalism'*

Now, this theory of knowledge by itself would constitute Hobbes a 'logical' (or 'epistemological') nominalist, but not yet a 'metaphysical' nominalist.[1] The metaphysical aspect of his nominalism discovers itself in his insistence upon the *arbitrariness* of the 'primitive propositions' that are the beginning of all demonstration and therefore of all science; and, consequently, since 'truth, and a true proposition, is all one,' the arbitrariness of truth itself.

> . . . Nothing can be proved without understanding first the name of the thing in question. Now 'primary' propositions are nothing but definitions or parts of definitions, and these only are the principles of demonstration, *being truths constituted arbitrarily by the inventors of speech*, and therefore not to be demonstrated . . .[2]

And:

> From hence [that is, from the fact that "true and false belongs to speech and not to things"] also this may be deduced, that the first truths were arbitrarily made by those that first of all imposed names upon things, or received them from the imposition of others. For it is true (for example) that "man is a living creature," and *it is for this reason, that it pleased men to impose both those names on the same thing*.[3]

The metaphysical implications of such a view of the nature of truth are profoundly sceptical indeed. The realist in metaphysics always, we know, recognizes an objective order of things as, in some sense, 'given,' or pre-existent, or prior to, the conceptions of the human mind and the propositions of human discourse; and believes, further, that the nature of this objective order is discoverable, and its relation to our mental worlds of ideas and to our linguistic universes of discourse, though not easy to determine, is yet capable of being determined. For the metaphysical nominalist like Hobbes no such objective order is 'given.' The world for him is "a universe of disconnected singulars" (to adopt Mr. Carré's phrase in speaking of Ockham's world-view)[4]: a world in which nothing is 'given' but bare discrete sense-particulars, and everything else—all order, all significance, all intelligibility—is created by the mind of man. And among these creations of the mind stands truth itself. Truth, on any view of the world other than the radically nominalistic view that Hobbes holds, might, in some sense, be supposed to be given: for even in the uneasily

[1] This useful distinction is used by Professor Moody in connexion with Aristotle's philosophy in his book *The Logic of William of Ockham* (Sheed and Ward, 1935).

[2] *L.C.*, 3.9. [3] *Ibid.*, 3.8.

[4] Meyrick A. Carré, *Phases of Thought in England.* (Oxford, 1949), pp. 162–3 *et al.*

nominalistic philosophy of one like Bertrand Russell,[1] truth is taken to consist in the relation of 'correspondence' between propositions and facts or states of affairs; and still in the more advanced nominalism of those modern 'physicalists' who in recent years set out their doctrines in *Erkenntnis*, it retains some relation to the real, that is, to the extra-linguistic, extra-mental world, through its supposed reducibility to 'protocol-statements.' For Hobbes, however, this work of man, truth, is entirely *created*, entirely severed from all dependence upon the real or extra-linguistic world, entirely *ad placitum* because entirely a matter of the "arbitrary imposition of names."

(v) *Nominalism and Conceptualism*

This is perhaps the place to say something briefly about the relation between Hobbes's nominalism and his conceptualism. A useful passage for illustrating the conceptualist elements in Hobbes's thought is the passage on 'evidence' in *Elements of Law* (I. 6.2.3). It occurs in the course of his discussion of the difference between 'truth' and 'knowledge.' "If truth be not evident," he says, "though a man hold it, yet is his knowledge of it no more than theirs that hold the contrary. For if truth were enough to make it knowledge, all truths were known: which is not so." Nor is perfect ratiocination by itself a guarantee of *true* knowledge: for—

> Though he begin his ratiocination with true propositions, and proceed with perfect syllogisms and thereby make always true conclusions; yet are not his conclusions evident to him for want of the concomitance of conception with his words.

The crucial word 'evidence' is further defined as "the concomitance of a man's conception with the words that signify such conception in the act of ratiocination"; and the passage ends with the affirmation

> Evidence is to truth as the sap is to the tree . . . For this evidence, which is meaning with our words, is the life of truth; without it truth is nothing worth.

The passage admits (I believe) of several interpretations. When Hobbes speaks of "the concomitance of a man's conception with the words that signify such conception in the act of ratiocination," one recalls that Ockham habitually defined 'signification' as *the act of signifying*,[2] and this may well be what Hobbes means to affirm here about 'evidence' when he says it is "meaning with our words." And if this is the case, then 'evidence' is being defined as a psychological

[1] Mr. Max Black speaks of Russell's 'uneasy nominalism' in a critique of his treatment of the problem of 'vagueness.' (Black, "Vagueness: An Exercise in Logical Analysis," in *Language and Philosophy*, p. 32, n. 12).

[2] Mr. Moody discusses this in his book *The Logic of William of Ockham*, pp. 44 *et al.*

phenomenon, and 'meaning' (or 'signifying') is the mere psychological act of 'seeing' the concomitance of conception with words—seeing, that is, that a particular 'name' (a sound in the air or mark on paper) stands for, or 'signifies,' a particular 'conception' (a 'phantasm' or 'seeming' in the brain).

Alternatively, it is possible that the term 'conception' in the defining phrase "the concomitance of conception with his words" refers to what Aristotle regarded as the fundamental condition of discursive knowledge itself, namely, the recognition of identity and difference.[1] 'Evidence' would then mean the recognition that this is this, not that—that, for instance, a valid deduction from the premises *is* a valid deduction; and this would be a strong enough reason for insisting that 'truth' must be 'evident' in order that it may become 'knowledge,' and that 'evidence,' which is 'meaning with our words,' is therefore 'the life of truth.' Either interpretation is, I think, possible because Hobbes in his logic and epistemology owes much to both Ockham and Aristotle, and it is not likely that he would have missed these important points in their systems. The weight he himself attaches to what he calls 'evidence' would suggest, further, that it has as important a place in his theory of knowledge in *Elements of Law*[2] as the identification of 'meaning' with 'the act of meaning' had in Ockham's theory of knowledge, and the 'principle of identity' (in the sense indicated) in Aristotle's.

Even if neither of these explanations that I have suggested is correct, however, the passage remains as good an instance as any of Hobbes's conceptualism. Though for a radical nominalist like Hobbes nothing is 'given' but everything, except bare sense-experience, is 'created' by the human mind, and all *opera hominum* may consequently be viewed as systems of discourse, yet—those systems of discourse would be meaningless marks on paper or sounds in the air if 'evidence,' which is "the concomitance of a man's conception with his words," were absent. Without the 'conceptual' realization of meaning, in other words, there *is* no meaning. And that is why for Hobbes "evidence is to truth as the sap is to the tree"; for it alone creates meaning and truth in what would otherwise be a chaos of disconnected sense-experiences.

It has been argued that Hobbes's conceptualism, if not positively incompatible with his nominalism, at least modifies it in an important

[1] Aristotle, *Topics*, 102a, 9; *Post. An.*, 72b, 20–25; *Topics*, 157a, 25–30, and the whole discussion of the Principle of Contradiction in *Metaphysics*, Book Γ, Chs. 2–5).

[2] It is perhaps significant that the passage does not reappear in the corresponding sections of *Leviathan*.

way: modifies it to the extent, at any rate, of making it appear considerably less radical than it seems. John Laird, for instance, says that "Hobbes was a nominalist because he was a conceptualist," meaning (one presumes) that the conceptualism is in some sense logically prior to the nominalism and the nominalism therefore logically dependent upon the conceptualism. It is difficult to see this supposed causal connexion between Hobbes's nominalism and conceptualism. Hobbes *was* a nominalist and *happened* also to be a conceptualist. The nominalism is always and everywhere his fundamental position, with which everything else, including his conceptualism, is made consistent.

As to the supposed modifying effect of Hobbes's conceptualism upon his nominalism, this is so far from being the true relation between them in Hobbes's system (whatever may be the case in the abstract) that something almost exactly the opposite is the true relation. Hobbes's conceptualism does not modify his nominalism; on the contrary, it reinforces and confirms it. For to say that "evidence is the concomitance of a man's conception with his words" is *not* to say also that those 'conceptions' in any way reflect or represent or correspond to the 'things' from which they are derived. Those 'conceptions,' for Hobbes, are nothing but one kind of motion in matter, namely, 'phantasms' or 'seemings,' produced by another kind of motion in matter, namely 'things'; and no sort of correspondence between them is either affirmed or implied. Our conceptions, in short, bear no relation whatever to the 'real' nature of things: "To put 'genus' and 'species' for things, and 'definition' for the nature of any thing, as the writer of metaphysics have done, is not right, seeing they be only significations of what we think of the nature of things."[1] Consequently Hobbes's emphasis upon the concomitance of our 'conceptions' (that is, our 'phantasms' or 'seemings') with our 'words' does not in the least modify his main nominalistic doctrine—the doctrine that all definition is created by "the arbitrary imposition of names." For definition remains arbitrary or *ad placitum* in Hobbes's sense of the word 'arbitrary,' in the sense, that is, that our definitions (that is, our words) bear no knowable relation to the nature of things, but signify only our conceptions—"what we think of the nature of things." And while this definition of definition remains unmodified, Hobbes remains a radical nominalist, and his conceptualism remains powerless to modify that nominalism but can only confirm it.

Hobbes's account of reasoning as a process of 'reckoning' is entirely consistent with this nominalistic logic and metaphysic. Every body

[1] *L.C.*, 2.10.

of knowledge (runs the argument), as it is truly 'scientific,' is demonstrative—that is, a system of propositions, 'primitive' propositions or definitions, together with 'derived' propositions. To that extent it is analogous to a mathematical calculus, and as such is created by the arithmetical operations of addition and subtraction, namely, *reckoning*.[1] In the account of 'reason' in *Leviathan*, the phraseology of 'reckoning' or 'computation' is used throughout with astonishing consistency:

> We turn the *reckoning* of the consequences of things imagined in the mind into a *reckoning* of the consequences of appellations . . .[2]
>
> This diversity of names may be reduced to four general heads. First, a thing may *enter into account* for 'matter' or 'body' . . . Secondly it may *enter into account* or be considered for some accident or quality. . . . Thirdly, we *bring into account* the properties of our bodies . . .[3]
>
> He that takes up conclusions on the trust of authors, and doth not fetch them from *the first items of every reckoning, which are the significations of names settled by definitions*, loses his labour . . .[4]

and the celebrated aphorism—

> For words are wise men's counters, they do but reckon by them; but they are the money of fools:[5]

where language is turned into a system of counters, to which values ('meanings') have been arbitrarily assigned, and which wise men, following the example of the mathematicians, will manipulate in accordance with prescribed rules of inference (or 'reckoning').

The connexion between this view of 'reasoning' and the central moral and political doctrine in *Leviathan* is plainly indicated in the very passage in which Hobbes defines "Reason, what it is":

> . . . These operations are not incident to numbers only, but to all manner of things that can be added together, and taken one out of another . . . Writers of politics add together pactions to find men's *duties*; and lawyers, *laws* and *facts*, to find what is *right* and *wrong* in the actions of private men. In sum, in what matter soever there is place for *addition* and *subtraction*, there also is place for reason; and where these have no place, there *reason* has nothing at all to do.[6]

And that such a view of 'reasoning' presupposes also the 'atomistic' world-view of the metaphysical nominalist is equally plain. Since nothing is 'given' but physical particulars, or 'disconnected singulars,' there can be no such thing in the world as organic unity, and no possibility of organic connectedness. All connexion is artificially created; and it is created by those perfectly artificial, perfectly mechanical operations, addition and subtraction.

[1] *L.*, Ch. 5. [2] *L.*, Ch. 4. [3] *L.*, I. 4 (pp. 22–3). [4] *Ibid.*, I. 5 (p. 26).
[5] *Ibid.*, I. 4 (p. 22). [6] *L.*, Ch. 4. Hobbes's emphasis.

The peculiar interest of Hobbes's scepticism for the philosophical reader is that it is the joint product of his radical nominalism in logic, in epistemology and in metaphysics. Nor is it necessary, even if it were possible, to decide the thorny question of priority—whether the nominalistic doctrine of meaning and truth came first, the universe of disconnected singulars afterwards, as the logical consequence of that doctrine; or whether it happened the other way about. This problem belongs to the history of Hobbes's intellectual development, and does not concern us here. Here it is sufficient to remark the concomitance of the nominalist logic and epistemology and the nominalist metaphysic, to show their connexion, and to consider some of the more important consequences of that connexion that may be discovered in various parts of Hobbes's philosophy.

II. Physics and Language

Hobbes's theory of physics—'science 'in the modern sense—is one important part of his philosophic system in which the effects of his nominalistic 'language-consciousness' may be discerned. For Hobbes, we have seen, a system of 'science' (or knowledge) must be demonstrative: this alone gives it the certainty that belongs to true knowledge as distinct from mere 'prudence,' which is knowledge by induction from experience and therefore never more than conjectural. "Experience," we remember, "concludeth nothing universally." Yet 'science' is for Hobbes also a knowledge of causal relations—the knowledge of things 'in their generation' and therefore in some sense, subject to empirical control:

> . . . Philosophy is the knowledge we acquire, by true ratiocination, of appearances, or apparent effects, from the knowledge we have of some possible production or generation of the same; and of such production, as has been or may be, from the knowledge we have of the effects.[1]

How are these seemingly irreconcilable views of 'science' to be reconciled—'science' viewed, on the one hand, as a purely demonstrative system, and, on the other, as a knowledge of causal relations within the real physical world? That is the problem; and on its solution depends the fulfilment of Hobbes's grand philosophic ambition, to create a system of the world that shall fulfil at once the empirical and the rational conditions of true knowledge, that shall (in Thomas Salusbury's phrase) satisfy at once the course of nature and the discourse of the mind.[2]

[1] *L.C.*, 6.1.

[2] Thomas Salusbury's translation of Galileo's "System of the World," in *Mathematical Collections* (London, 1661), p. 320. Professor Oakeshott, in his Introduction to his edition of *Leviathan* (p. xxii), rightly observes that

The solution is attempted in Book I of *De Corpore*, called *Of Logic and Computation*, in particular in those sections in which Hobbes gives his account of science as 'invention' or 'discovery.'[1] Here, as in neither of his earlier accounts of the same matter (in *Elements of Law* and *Leviathan*), he appears to distinguish, very carefully and very deliberately, between science as the 'discovery' of true causes, and science as demonstration, or 'method.' Thus, under the marginal head, "Method and science defined," he writes:

> METHOD . . . in the study of philosophy is the shortest way of finding out effects by their known causes, or of causes by their known effects. But we are then said to know any effect, when we know that there be causes of the same, and in what subject those causes are, and in what subject they produce that effect, and in what manner they work the same. And this is the science of causes, or, as they call it, of the διότι. All other science, which is called the ὅτι, is either perception by sense, or the imagination remaining after such perception.[2]

We may leave aside the question of the 'other science'—which is to be taken only as the raw material, so to speak, of science proper, the science of causes—and fix our attention on the distinction between 'science' and 'method' that is being offered here. Such a distinction does suggest (*a*) that the 'true causes,' which are 'discovered' by the 'method' are, in some sense, extra-discursive, extra-mental entities, in some sense existents *in rerum natura*—not, that is, creations of the human mind; and (*b*) that 'method' is the mental (discursive or ratiocinative) operation which, in some sense, stands in contrast to those 'true causes' which are discovered by its means. The distinct names, 'science' and 'method,' do suggest that some such contrast is intended; and this suggestion is reinforced in a later section in the same chapter: ". . . And this much may serve for the method of invention. *It remains* that I speak of the method of teaching, that is of demonstration, and of the means by which we demonstrate."[3]

". . . one of the few internal tensions of his [Hobbes's] thought arose from an attempted but imperfectly achieved distinction between science and philosophy . . . between a knowledge (with all the necessary assumptions) of the phenomenal world and a theory of knowledge itself." Our discussion of Book I of *De Corpore* will confirm this observation. Yet it is not inaccurate to describe Book I of *De Corpore* as a theory of physics, or 'science' in the modern sense, since this, at any rate, is what Hobbes intended it to be; and the details of the attempt are, in any case, worth attention.

[1] I wish here to acknowledge a general debt to Professor F. Brandt's full and close discussions of the First Book of *De Corpore* in his book *Thomas Hobbes' Mechanical Conception of Nature* (1928). Though my own analysis differs in important points from his, it was his work on this difficult portion of Hobbes's doctrine of science that first drew my attention to it, suggested the central problem that it raises, and gave many invaluable hints towards its understanding.

[2] *L.C.*, 6.1.

[3] *L.C.*, 6.10.

What actually happens, however, is that the contrast is neither developed nor even further elucidated. On the contrary, it is almost immediately—in the next paragraph—dissolved; and this is accomplished by a curious and significant shift: by simply changing the question from a question about the *nature* of true causes into a question about *our knowledge of* true causes—that is, avoiding (or evading?) the metaphysical question by changing it into an epistemological question. This is the passage:

> The first beginnings of knowledge are the phantasms of sense and imagination; and that there be such phantasms we know well enough by nature; but to know why they be, or from what causes they proceed, is the work of ratiocination, which consists . . . in composition, and division, or resolution. There is therefore no method, by which we find out the causes of things, but is either compositive or resolutive, or partly compositive, and partly resolutive . . . etc.[1]

The shift is unmistakable; for Hobbes does here *begin* by talking about the only 'things' that he does believe to exist *in rerum natura*, namely, "the phantasms of sense and imagination." But already in this first sentence the shift has begun: "that there *be* such phantasms we *know* well enough"; and so the crucial shift, from the nature of 'true causes' to our knowledge of them, is easy: ". . . but to know why they be, or from what causes they proceed, is the work of ratiocination . . . etc." And thus the threatened distinction between 'science' and 'method,' is avoided—the distinction, that is, between a 'real' account of science as the discovery of 'true causes' and a nominal account of science as 'the work of ratiocination.' Science, the 'science of causes,' turns out to be after all identical with 'method,' as this later passage finally makes clear:

> And seeing teaching is nothing but leading the mind of him we teach, to the knowledge of our inventions, in the track by which we attained the same with our mind; therefore, *the same method that served for our invention will serve also for demonstration to others*, saving that we omit the first part of method which proceeded from the sense of things to universal principles, which, because they are principles, cannot be demonstrated . . .[2]

'Science,' then, is identical with 'method'; and method is ratiocination; and ratiocination (we remember) is 'reckoning,' that is, the manipulation of names. And, consequently, from the impulse of the rationalist mind to view science as, exclusively, demonstrative or 'methodical,' reinforced by the nominalist view of demonstration as 'reckoning,' the account that finally emerges of the science of causes, physics, is, characteristically, highly nominal. The distinctive features of the supposedly empirical method of discovery, namely, 'resolution' and 'composition,' are presented as "the work of ratiocination," that is, reckoning, that is, manipulation of words; and the

[1] *L.C.*, 6.2. [2] *L.C.*, 6.12.

science of true causes emerges from this process of philosophical alchemy as a system of discourse or 'language.' Physics, in other words, is virtually identified with the language of physics, with 'physical discourse'; and the 'resolutive' and 'compositive' phases of scientific method are presented as complementary aspects of the operation of the *language* of physics.[1]

I have attempted to construct something in the nature of a 'concrete model' of Hobbes's view of science as it has been here interpreted, by suggesting the kind of analysis of the term *square* (he himself uses it as an example)[2] that would fit what I have taken to be his peculiar conception of physics as at once *scientia realis* and *scientia rationalis*. Beginning with the 'resolutive' phase, it would take some such form as the following:

1. When we take SQUARE as thing and first resolve it into its 'components,' i.e. line, plane, limitation, angle, equality, rectangularity, etc., what we are at the same time doing is to *define* SQUARE as a 'substance'-word in terms of a series of 'property'-propositions.

2. When, next, we discern the causes of these 'components' viewed as things (*entia realia*), what we are at the same time doing is to

[1] It has been no part of my purpose here to criticize Hobbes's theory of science in *De Corpore*, but only to elucidate that theory and to show its connexion with his doctrine of meaning and truth. The direction in which such a critique might perhaps most profitably be pursued may, however, be indicated. This direction is set if we remember that for Hobbes definition is always nominal. That, perhaps, is the ultimate source—or one way of describing the ultimate source—of the difficulties that must be felt about his view of physics as science. For to characterize all definition as 'nominal' is proper (and true) when one is concerned with the 'logic of science,' when (to employ a modern distinction) one is engaged in a 'meta-linguistic' analysis of the language of physics ('scientific discourse'). But when one is concerned with the science, physics, itself; when one is seeking to discover particular physical truths, or—in terms of the same distinction—seeking to create an 'object-language,' as distinct from defining the terms, expressions, etc., of such an object-language *in* a meta-language—then another kind of definition is required: the kind that has traditionally been called 'real' definition, and has been so called because it purports to define things, not words; and though not necessarily the 'essence' of a thing, yet those of its properties that distinguish it from other things and are in that sense definitive; but are in any case properties of the thing, not the name of that thing. The whole question of 'real' and 'nominal' definition, however, is too large to be pursued here. It has received some attention in recent years, and among the most illuminating of these recent discussions is Morris Weitz's, in his essay "Analysis and the Unity of Russell's Philosophy" (in *The Library of Living Philosophers*, Vol. V, pp. 110 ff.). It could serve as a useful starting-point for a critique of Hobbes's theory of science in the First Book of *De Corpore*.

[2] *L.C.*, 6.4.

assign logical antecedents ('reasons,' which are *entia rationis*) to the components viewed as 'property'-propositions.

And:

3. When we say that the sum of these causes of the real components or elements of SQUARE equals the cause of SQUARE, as thing,[1] this is to say at the same time that the sum of the logical antecedents of the property-propositions composing the meaning of the word SQUARE equals the sum of the 'primitive' definitions (or axioms) of the physico-mathematical theory which is the 'reason' of SQUARE.

We may re-state the argument more simply, perhaps, as follows: To speak of the 'cause' of SQUARE (following Hobbes's own curious mode of expression) is to speak of the sum of the real, physical components, or elements, or properties, of a real, physical entity—a square; and these real physical components, or elements, or properties taken together, are the generative source, that is, the 'cause' *in rerum natura*, of the real physical entity, the square. To speak, analogously, of 'the reason' of SQUARE is to speak of the sum of a number of propositions containing the word 'square' (e.g. "A square is a plane figure," "A square contains four angles," "A square is bounded by four straight lines," etc.), which together make up the *definition*, that is, the 'explanation,' and in that sense, the 'reason,' of 'square,' as a rational (that is, discursive, or logical, or linguistic) entity. But definitions which 'explain' in this way are in fact the primitive propositions or axioms of a theory, from which it is logically possible to derive the propositions assigning specific properties to the entity square. Consequently it is that theory, viewed as a system of discourse, that is finally the 'explanation,' or 'reason', of 'square.'

4. Now (returning to Hobbes), the cause of all causes is motion:

> . . . They have all but one universal cause which is motion. For the variety of all figures arises out of the variety of those motions by which they are made; and motion cannot be understood to have any other cause besides motion. . . .[2]

And to say *this* is to say that the mathematical equations expressing the most general relations of forces in nature are at the same time the axioms or primitive definitions of the most comprehensive theory (that is, system of discourse) of the physical universe laid down by the masters of that science.

Thus far the 'resolutive' phase of scientific method—viewed, simultaneously, as a process of discovery, by which the real causes of phenomena *in rerum natura* may be known, and a process of demon-

[1] Thus Hobbes, in the passage at *L.C.* 6.4.: ". . . If we can find out the causes of these [i.e. the 'universal properties of square'] we may compound them altogether into the cause of square."

[2] *L.C.*, 6.5.

stration (or ratiocination), by which we may know also the 'reasons,' viz. 'explanations,' or definitions, of the *names* of those things. The 'synthetic' or 'compositive' phase can be viewed in the same way.[1] Having discovered (and stated as mathematical formulae) the causes (and thus the 'reasons') of the components (as 'elements' and as 'propositions'), and so, by addition, the cause (and 'reason') of SQUARE (as 'thing' and as 'name'), we now ask, Given motion as the universal cause, what effects in the real world must follow from such a cause? And that is the same as to ask, Given a comprehensive *theory* of motion, what inferences (or 'consequence-propositions') can be derived from the primitive definitions (or axioms, or 'antecedent-propositions') of that theory of motion viewed as a system of discourse, or language-system? And when the effects (or consequence-propositions) have been derived, by the rules of transformation laid down for that theory, from the universal cause, motion (that is, from the primitive *definitions*, or axioms, of the *theory* of motion), the system of the world, as far as Hobbes is concerned, is complete. For Hobbes, as we know, cared little about the experimental verification of the inferences: that (he would have said) was the business of the practising physicist, not the philosopher. The philosopher's business was, simply, to give an account of science such that it should yield an answer to the question, What *must* a physical theory be like in order that it should satisfy at once the course of nature and the discourse of the mind? And Hobbes's answer is that it must be a rational system, that is, a system of discourse, or a system of propositions, which satisfies at once the empirical criterion of truth and the logical criterion of deductive rigour. As the 'resolutive' process begins with the mathematical analysis of observed effects, the primitive propositions may be said to be empirically grounded; and as these primitive propositions *qua* definitions, along with (logical) rules of transformation, may be rendered so precise that only one set of consequences shall be derivable from those primitive definitions by those rules of transformation, the system achieves also complete deductive rigour.

[1] A full and fascinating account of the history of the resolution-composition distinction in Western speculation on the philosophy of science may be found in a series of three articles by Dr. A. C. Crombie published in *Discovery* (Nov. and Dec., 1952, Jan., 1953). Dr. Crombie's invaluable researches into the origins of the Galilean view of science, stretching back through Ockham and Robert Grosseteste to Ptolemy and Archimedes and, ultimately, to Aristotle, place in their full historical perspective Hobbes's discussions in Book I of *De Corpore*. For Galileo, one remembers is the source of much of Hobbes's wisdom in *De Corpore*, by his own explicit and unusually generous acknowledgement; and it is not unlikely that he was acquainted also with the writings of at least some of the 'pre-Galilean' philosophers of science, especially those at Padua in the fifteenth and earlier sixteenth centuries.

The emphasis throughout Hobbes's account of the science of physics is on the deductive rigour of the system. For Hobbes, truth, and therefore 'science,' remains, in the end, demonstrative; and it is for this reason that he ranks as one of the most thoroughgoing rationalists of the seventeenth century. But he does share also Francis Bacon's (and Galileo's) perception that the satisfactions of demonstrative truth are not enough for the philosophic mind; and it is this perception that impels him to take into account also the empirical aspect. This he does by acknowledging that at least 'the first part of the method,' namely 'resolution,' must 'proceed from the sense of things,' that is, from empirical observation, in order that our primitive definitions may be grounded *in nature*: in other words, that they may be empirically meaningful and empirically true. What he cares little about, however, is the 'verification-or-falsification' of predictions derived from those empirically grounded definitions, or hypotheses; and this, of course, leaves his understanding of scientific method seriously incomplete. Nevertheless, if our 'model' of the double movement of Hobbes's thought about science is a true model, what remains remarkable about Hobbes's account of science in Part I of *De Corpore* is his resolute effort to view physics as a discursive structure, a system of 'language,' implying, as this does, the larger effort to view the whole scientific enterprise *sub specie linguae*. And in this respect at least Hobbes's philosophy of science goes beyond that of both Bacon and Galileo.

III. The Analysis of 'Sedition' and 'God'

If "truth, and a true proposition, is all one" means for Hobbes that truth is a property of 'language' or discourse and not of 'things,' it is to be expected that the truth belonging to those *opera hominum* that are concerned specifically with the conduct of men, that is, their systems of law, morality, and religion, should also be 'of propositions.' A language-consciousness such as Hobbes's, logically grounded as it is in his thoroughly nominalistic doctrine of meaning and truth, is for that reason a settled habit of the mind; and as such almost commits him to viewing all systems of law, morality and religion as language-systems or systems of discourse. Hobbes, we find, shirks no part of the logical responsibilities of that commitment, but, on the contrary, pursues the consequences of his nominalism to their furthest logical limit, and applies them with rigorous consistency to the fundamental problems of commonwealth, morality, and religion.

The fullest evidence of the range, magnitude and audacity of Hobbes's application of his nominalistic philosophy to these problems is of course to be found in *Leviathan*. I mentioned earlier on the doctrines in *Leviathan* that most conspicuously show its influence.

This influence, however, is almost equally pervasive in the earlier *Elements of Law*, and it is from this earlier work that I have chosen two representative instances of Hobbes's nominalistic analysis of political and religious concepts. The first is his account of 'sedition,' the second of 'God.'

(i) *'Sedition'*

Hobbes desires, in this first draft of his civil philosophy, to characterize and expose that most virulent of all forms of social disorder, 'sedition.' He does not indeed go so far as to say that the *cause* of sedition is failure to observe the linguistic usages established in a given community: for the cause he must (and does) go to his doctrine of the passions. But he does say that wrong linguistic usage is the *defining mark* of sedition: that is how, in the first instance, we identify the phenomenon. With characteristic audacity, therefore, Hobbes states the criterion of recognition as follows:

> . . . The other kind of knowledge [science] is the remembrance of the names or appellations of things, and how everything is called which is, in matters of common conversation, a remembrance of pacts and covenants of men made among themselves concerning how to be understood of one another. And this kind of knowledge is generally called science, and the conclusions thereof truth. *But when men remember not how things are named by general agreement, but either mistake or misname things, or name them aright by chance, they are not said to have science, but opinion;* and the conclusions then proceeding are uncertain and for the most part erroneous . . . . . They [the authors of sedition] be *such as name things not according to their true and generally agreed upon names*; but call right and wrong, good and bad according to their passions, or according to the authorities of such as they admire . . . It is required therefore in an author of sedition that he think right that which is wrong; and profitable that which is pernicious; and consequently that there be in him *sapientiae parum*, little wisdom.[1]

The point is made again in a context still more comprehensive. Social order itself (Hobbes declares) is indissolubly linked with linguistic order; and it is therefore one of the main tasks of the sovereign to fix the meanings of all disputed terms, for in so doing he will minimize out of existence the main sources of social friction:

> In the state of nature, where every man is his own judge, *and differeth from other concerning the names and appellations of things, and from those differences arise quarrels and breach of peace*; it was necessary there should be a common measure of all things that might fall in controversy; as for example: of what is to be called right, what good, what virtue, what much, what little, what *meum* and *tuum*, what pound, what quart, &c. For in these things private judgments may differ and beget controversy.[2]

It is the business of the sovereign, in other words, to provide the 'common measure,' that is, to create civil laws; and to do that means

[1] *E.L.*, II. 8.13. [2] *E.L.*, II. 10.8.

(on this view) to lay down definitions—of right and wrong, profitable and unprofitable, virtuous and vicious, so that "the use and definition of all terms not agreed upon and tending to controversy" shall be established. This is also the answer to Humpty Dumpty's libertine attitude to language. Certainly (Hobbes is saying) you may make words mean what you please; but then you must be prepared to live perpetually in the state of nature outlined in Chapter XIII of *Leviathan*. If, however, you desire peaceable social living—and this is what reason, pricked on by those fundamental passions, self-preservation and the fear of violent death, would urge you to desire—the first 'natural right' you must be prepared to sacrifice is that of using words as you please. This right, above all other rights, must be vested in the sovereign, who must have absolute authority to fix the meanings of "all names tending to controversy," and absolute power to enforce their observance.

(ii) *'God'*

What is true of civil philosophy is also true of religion. As Hobbes reduces one of the central concepts of the theory of commonwealth to 'a question of language,' so also he reduces one of the central concepts of Christian theology, the concept of 'God,' to a question of linguistic usage.

> . . . Now forasmuch as we give names not only to things natural, but also to supernatural; and by all names we ought to have some meaning and conception: it followeth in the next place, to consider what thoughts and imaginations of the mind we have, when we take into our mouths the most blessed name of God, and the names of those virtues we attribute to him . . .[1]

Hobbes says "thoughts and imaginations of the mind"; but his actual treatment of the problem shows that what he means is the observable behaviour of men. It is the observable behaviour of men when they take into their mouths the most blessed name of God that determines the *meaning* of the word 'God'—or, rather, the meaning of propositions containing the word 'God.' Hobbes's argument runs as follows:

> Since God is, by Christian definition, incomprehensible, we can know nothing about his real nature; and by this Hobbes means that statements about God's attributes are not empirically verifiable. We can indeed know *that* he is; and the proposition 'There is a God' is a legitimate deduction from the existence of the created universe, and is therefore logically true or valid as it is

[1] *E.L.*, I. xi.1. The profane wit of the equivocal allusion to the sacrament of the Eucharist in this passage ("when we take into our mouths the most sacred name of God") would have done little, one suspects, to render more acceptable to Hobbes's Christian contemporaries his account of Christian worship.

derivable from the axioms or primitive definitions of this or that system of natural theology.[1] But the logical truth of the proposition 'There is a God' does not help us to assign a meaning to statements concerning God's divine attributes and men's 'affections to Godward.' The meaning and truth of these statements is established by reference to the observable behaviour of men; and for Hobbes the civil philosopher, intent upon constructing a theory of a Christian commonwealth, the observable behaviour of men in this connexion means the habitual religious attitudes and practices of Christians. Thus: the words *incomprehensible* and *infinite* signify "our inability and defect of power to conceive anything concerning his [God's] nature"; and the words omniscient, omnipotent, just, merciful, etc., our acknowledgement of his power and our habitual ways of paying homage to that power—by praising, magnifying, blessing, praying, giving oblations and sacrifice, which are "the same with the [natural] signs of the honour due to our superiors." And again: to love God *means* "to obey his commandments and to love one another"; to trust to God Almighty *means* "to refer to his good pleasure all that is above our power to effect"; to trust in Christ *means* "to acknowledge him for God"; and "to cast and roll ourselves on Christ" means "to acknowledge Jesus Christ as the son of the living God."[2] All the emphasis, we observe, is consistently upon our visible acts of acknowledgement: what we say and what we do defines the meaning of what 'interiorly' we think, feel, experience 'to Godward.'

It need hardly be insisted that this is not the only way of interpreting Hobbes's account of God and Christian worship. One may take the view that this is Hobbes, the civil theologian, exhibiting a purely 'anthropological' interest in the religious practices and observances of his own community. (This is the view that Professor Oakeshott proposes;[3] and it is a view that certainly receives much support from the tone and attitude in which the reinterpretations of the Scriptures in Part III of *Leviathan* are conducted.) Or one may say that this is Hobbes, the positivist, reducing the religion that preaches the circumcision of the heart to a collection, merely, of 'instituted' practices. Or one may take the view that we have chosen to take here—that this is Hobbes, the radical nominalist, re-stating the truths of the Christian gospel as facts 'about language'; this is what we *mean* when we take into our mouths the most blessed *name* of God; and apart from that (instituted) meaning of that name, we know nothing about God.

Newnham College, Cambridge.

[1] *E.L.*, I. xi.2. [2] *Ibid.*, I. xi.12.

[3] Oakeshott, Introduction to *Leviathan* (Basil Blackwell's Political Texts), p. lxii.

JOHN LOCKE AND NATURAL LAW

W. von LEYDEN, D.Phil.

It has been said, and few would deny, that John Locke is as important as the founder of philosophical liberalism as he is as the founder of the empiricist theory of knowledge. Though he was a most versatile thinker, writing on philosophy, politics, medicine, education, religion, and economics, and on all these with the knowledge of an expert and the influence of an authority, his fame no doubt derives on the one hand from his treatises on Toleration and Civil Government, and from his *Essay on Human Understanding* on the other. Whenever these are expounded by scholars, the political writings are discussed independently of the *Essay* and the *Essay* independently of the political writings. The reason for this is obviously that scholars have seen very little connexion between Locke's principal works. This has been changed with the appearance of a manuscript in which are preserved eight essays on the law of nature written by Locke in Latin shortly after the Restoration of 1660 and thirty years before the appearance in print of his major works. This manuscript has been published by me, and it is now possible to recognize that Locke's two main bodies of doctrine, namely his political theory and his theory of knowledge, have a common ground and that this lies in his early doctrine of natural law. Admittedly, the notion of a natural law can be seen to be of central importance in his treatise on Civil Government and it also plays its part in the *Essay*. But disappointingly little is said by Locke about this notion in either of these writings, and it is not until the appearance of his essays on natural law that we learn that there is an important relation between the two main parts of his teaching and what this relation is.

In this paper I wish to examine Locke's arguments concerning the existence and binding force of natural law. I have already touched upon certain aspects of this question in the introduction to my edition, but there they were related to their historical setting and other side-issues. Now my purpose is more specific. I am also concluding this paper with an entry in Locke's *Journal*, which contains certain basic ideas of his theory of natural law and which has for some reason or other escaped publication.

The law of nature as it occurs in Locke's philosophy is not the same as one of Galileo's or Newton's so-called laws of nature: it is not concerned with physical phenomena, their motion or regularity. In the sense in which Locke uses the term, it refers to human behaviour and to a moral law. In this sense the notion of a law of nature has had a well-known history among moralists, political theorists, jurists, and theologians before and after Locke's time.

The first perhaps to introduce the idea was Aristotle. He contrasted the uniform behaviour of things in nature with the varieties of human codes of behaviour. Fire, he said, always burns alike no matter where or when it is lit; whether in Greece or in Persia, to-day or a thousand years ago. On the other hand the customs of men, their moral and municipal laws vary from place to place and change from one time to another. However, there is for Aristotle one form of moral law which is eternal and immutable and has the same force everywhere; and because this law is supposed to be as uniform as a law governing natural phenomena he refers to it as a *natural* moral law, sharply distinguishing it from man-made laws which he calls conventional.

This idea of a natural law obtained great influence throughout the period when the Roman Empire spread and the whole of civilized humanity was thought to form one universal community, in which all men were equal by virtue of their common rational nature. The stoic philosophers and the Roman lawyers elaborated this idea and Cicero gave it a famous definition. He speaks of true law as being right reason in agreement with nature, of universal application and unchanging; that there is no need for us to look outside ourselves for an interpreter of it, though God is the author of this law and the judge who enforces it.

That Christianity, filling the vacuum caused by the breakdown of the Roman empire, adopted the belief in a law of nature can be seen from the fact that the idea of natural law appears as a basic conception both in the law-books of the Christian emperor Justinian and in Canon law. Throughout the Middle Ages the ultimate appeal regarding morals, politics, law and also divinity was to natural law, and by natural law the schoolmen meant a law promulgated by God in a natural way and known by reason, i.e. a law other than God's positive law which is known by revelation. Natural law together with the law laid down in the Scriptures was thus regarded as constituting the whole of the divine law. As such it was accepted as an objective 'rule and measure,' an absolute controlling principle.

The fifteenth and sixteenth centuries, as we know, witnessed the emergence of a secular morality, of humanism and the new outlook of the Renaissance. It was in connexion with this new outlook and with the advent of Protestantism which advocated the 'priesthood of all believers' and the necessity of toleration that natural law came to be regarded as a body of individual rights, of subjective claims and thus mainly as a liberating, rather than controlling principle. During the seventeenth and eighteenth centuries the study of natural law was pursued by jurists on the Continent who thought this law to be independent of theological presuppositions and the result of a purely scientific construction, a matter of mathematical deduction. At the same time, while British moralists attempted to provide ethics with

a rational foundation, Anglicans sought in the light of contemporary knowledge to redefine the place of natural law within Christian apologetics.

Throughout the nineteenth century, owing to the advance of critical and sceptical arguments, there was a marked tendency to reject many of the traditional criteria of morality and to adopt positivist approaches, particularly in legal theory. In fact, the rise of modern jurisprudence is characterized by the abandonment of the theory of natural law. Also most modern philosophers, analysts as well as positivists, have come to regard this notion as obsolete. Yet we find that between the two wars and again in recent times a number of thinkers have admitted that they cannot dispense with this concept. While admitting this, some would nevertheless maintain that natural law and the theology with which this is associated is pure superstition. For them it is only because the facts involved in law include the *ideas* men have of certain general or supernatural characteristics that the legal philosopher must take them into account. On the other hand, there are contemporary thinkers who genuinely believe in some sort of natural law and make this the basis of their own theories.

It is certainly interesting in this connexion to note that it is only in Russia that no traces of natural-law theory have existed at any time. Though Russia, like the West, has a Christian tradition, it differs from the West in having no humanist tradition. And the idea of a natural law, as I have tried to show, was derived in the first instance from pre-Christian thought, that of Aristotle, the Stoics, and Cicero: it is intimately linked with the humanist belief in the efficacy of man's reason, the freedom of his will, and his moral responsibility.

Having sketched the historical development of the idea of natural law, let us consider what doctrine Locke contributed in his published works. His teaching in the *Second Treatise of Government* can be summarized as follows:

The law of nature is a declaration of God's will and a standard of right and wrong. It is a law that already governs the state of nature, i.e. a pre-social state in which all men are free and equal, and in which they live together in peace. If men make promises to one another in the state of nature, they must consider themselves bound by them, 'for truth and keeping faith belong to men as men, and not as members of society.' It is likewise according to this law and prior to any positive civil laws that each man's private property is determined. Though God has given the earth and all its fruits to men in common, the law of nature sets bounds to what each man is allowed to appropriate and keep for himself. Since within these bounds a person's 'right and conveniency' go together, there can be little room for quarrels about property. Further, for Locke part of God's purpose in creating man was to 'put him under strong obligations of necessity,

convenience, and inclination to drive him into society, as well as to fit him with understanding and language to continue and enjoy it.' Throughout man's life in society and under political government, the obligations of the law of nature remain valid, and it is only as they are founded on this law that the municipal laws of countries are just laws. In general, political power for Locke is justified only in so far as it preserves men's natural rights, especially those of life and property. Government is thus limited both by natural law and by men's rights, and these two came to be almost identical for Locke. On the other hand, what man did not possess in the state of nature he cannot resign to the community when he enters it: since he had no arbitrary right in the state of nature to act against the law of nature, i.e. to destroy himself or others, or to take away property which is not his, there should not be any such arbitrary power in society.

It can be seen that the part played by natural law in Locke's political theory is indeed fundamental. It is because he believes this law to be the law of the state of nature, and this state of nature to be not altogether annulled when it is superseded by men's life in society, that for him natural law remains valid in society and in fact sets limits to political government. To put the point less metaphorically: because he is rational, man, according to Locke, is eternally subject to natural law, itself a rational law, regardless of whether or not he lives in an established society.

Unfortunately, despite the basic importance of natural law for Locke's political theory, there is little real discussion of it in any of his mature published writings. In a passage of his *Second Treatise of Government* he even expressly declines an investigation of the particulars of this law; yet what we should like him to tell us particularly is how he thinks we come to know natural law, and how and to what extent it can be said to be binding. In my view, Locke tended in his later years to regard the notion of a law of nature as a mere premise of his thought, as something he believed in but barely investigated. The reason for this attitude, I think, is to be found in difficulties he had in reconciling the notion of this law with some of his mature doctrines. For instance, the development of his hedonistic views and his philosophy of language in the *Essay* had made it difficult for him to attempt a full exposition of natural law or even to believe in it whole-heartedly.

However, with the discovery of Locke's early manuscript on natural law we are in a position to fill in the picture which is left rather vague in his mature works. We can see now that most of his remarks about the law of nature in the *Second Treatise* and the *Essay* have their origin in his early essays. In particular, two crucial questions (about which there is hardly any discussion at all in his mature writings) obviously exercised his mind when he was writing

the essays, i.e. the epistemological question—how do we know the law of nature?—and the moral question—how and to what extent is that law binding?

Because of the relatively full account which the essays provide of Locke's views on natural law, it is also possible now to point to definite weaknesses in his theory and to state one's criticisms in precise terms. In a sense it is not surprising to find that the thought of publishing his early work on natural law receded from Locke's mind and that the moral doctrines of his youth were not wholly absorbed in the writings of his maturity. There is a great deal of ambiguity in this notion of a law of nature, and a philosopher naturally feels called upon to disentangle the complex of different issues that it contains.

The concept that has given rise to confusion in theories of natural law is that of reason or rationality, and I propose now to investigate the meaning of this term in so far as it concerns us here.

If asked exactly what commands form part of the law of nature, Locke and most other theorists, I believe, would include the following: to preserve life, to beget and bring up children, to worship God, to obey parents, to show gratitude to benefactors, to respect another's property, and to live in society with other men. Now all these commands have a show of truth or reason and imply duties that would seem to be obvious and readily acceptable to common sense. However, other dictates of this law might not seem to be equally patent, and it has therefore been considered necessary for man, in order that he may know his duties, to employ his mental faculties, i.e. his senses and his understanding. One of the reasons, in fact, why natural law has been called a *natural* law is that the knowledge of it is said to be acquired by man's *natural* faculties, i.e. sense-perception and reason, the joint exercise of which constitutes what Locke and others called the 'light of nature.' The 'light of nature' is thus reason and the law of nature is a law of reason, a law that does not bind children, idiots, or animals, precisely because they are by nature devoid of understanding in the ordinary sense.

To conceive of law as a law of reason has no doubt advantages, particularly that of making it capable of treatment apart from man's emotional nature and thereby securing for it complete impartiality. 'Law,' as Aristotle has said, 'is reason free from all passion and a neutral authority.' But—and here we come to the crucial point—does the conception of law as a law of reason imply that it is possible to justify it rationally, and if so, has any one of the many theorists who throughout the ages have made attempts in this direction been successful?

I am inclined to answer both these questions by saying that a rational defence of natural law is bound to fail because it is liable to

involve confused ideas about reason. Issues that should be clearly distinguished from one another in any truly rational exposition are obscured if one passes from statements concerning matters of fact to definitions, thence to statements about ways of knowledge, to judgments of value, and finally to logical truths, assuming throughout that each of the passages is a step in one and the same sort of inferential process, and that each is concerned with one and the same meaning of rationality.

It can be shown, I believe, that a confusion of this kind occurs in every theory of natural law: I can only give one example here, and I will try to show how the confusion arises in Locke's theory. The line of my enquiry will follow what I take to be the logical steps of his argument. They are briefly these: Locke passes from the factual statement that man possesses reason to the conclusion that reason is his essential characteristic and hence to the assumption that reason leads to the discovery of moral truths and, if properly employed, to the discovery of one and the same set of moral truths, i.e. natural law. From this he is led to infer ethical assertions to the effect that the moral standards discovered by reason are themselves rational and that they are commands binding on all men. From this he passes to the belief that the validity of such commands can be proved by reason, and even shown to be necessary in the same way as a geometrical demonstration or a logical deduction.

Locke's starting-point is simple: it is the factual statement that men possess reason and use their reason. The fact that some men cannot reason and that some of those who can do not is admitted by Locke, and he refers to idiots and children and to those who because of their emotional nature or because they are lazy or careless, make no proper use of their reason. In spite of this admission, his next step is to assert that men not only can reason but that reason is their defining property and that therefore their special function is to exercise it, i.e. that they are obliged to use their reason.

Locke's inference here is from the matter-of-fact proposition—if it is a matter-of-fact proposition—that all men are rational, to the statement—which is a definition—that in order to be truly men, men must be rational. This statement is not so much about an indisputable fact as a belief derived from Aristotle's idea of 'fixed natures.' Though definitions depend in some sense on evidence, they are not empirical statements, i.e. statements about fact, which can be either true or false; hence definitions cannot be validated or invalidated by statements of a purely factual kind. Moreover, from a statement about man's defining characteristic, i.e. a statement that is neither a moral one nor a necessary one, the *moral* proposition is inferred that he has a duty to live in conformity with his essential nature. This conformity is in its turn twofold: it may mean that it is man's duty to use reason

and also that he has a duty to obey reason, i.e. to accept the findings of reason. Further, it is implied in Locke's whole argument that the very question at issue, namely whether reason is an essential characteristic of men and whether they are therefore obliged to use it is decided affirmatively by reason itself. I conclude then that we are here confronted with various meanings of the term reason which Locke does not disentangle, and also with statements of different kinds so that it is not always possible to pass from one to the other and to apply to each the same sort of proof.

Let us now consider Locke's answer to the question how men come to know natural law.

Obviously, in connexion with this question, reason will have to be discussed on two levels: firstly, as a mental 'activity' of man leading to the production or discovery of moral truth; secondly, as the spiritual product of this activity, consisting of a body of rational principles or rules of conduct. Locke is careful to distinguish between the two meanings of reason. By the first he understands the discursive faculty of the mind which seeks to discover truth by forming arguments from things known to things unknown. By the second he understands a set of moral truths which can become an object of knowledge and a rule of action, and this he calls 'right reason.' Whereas for him the discursive faculty like the organs of sense is inborn in man, 'right reason' is not. And for him also, the moral truths coming before the mind are not made or dictated by human reason, but merely discovered and interpreted by it. Thus in a way he still regards human reason as a sort of cause of which truth is the effect: it does not bring truth into existence but it leads to its knowledge. I will not raise here the question whether reason can be regarded as a cause rather than simply as a way of doing or considering something; nor will I examine whether rules of conduct are discovered rather than made, as the study of anthropology would suggest. I think however that Locke's belief in the causal efficacy of reason was a half-hearted one since according to him reason cannot be regarded as a *source* of knowledge. By itself, he would say, reason provides no primary notions and it therefore requires some material which can serve as a starting-point for its operations. According to him the material in question is provided by sense-perception.

It is here, in connexion with his early theory of natural law that Locke's empiricism, his well-known emphasis on knowledge by the senses, has its origin. For this reason I said at the beginning of my paper that Locke's two main bodies of doctrine, namely his theory of knowledge and his political philosophy, have a common ground and that this lies in his early doctrine of natural law.

The steps whereby in Locke's view reason leads to the knowledge of natural law from such data as the senses supply are briefly these:

Our senses tell us not only of bodies and their motions but also of beauty and regularity in all parts of the world. Since this beauty and regularity must be the result of some superior design, reason infers the existence of a most wise and powerful Creator. This argument from design together with the so-called anthropological argument are singled out by Locke from among the traditional proofs of God's existence precisely because these two arguments are derived from sense-experience and, apart from rational inference, require no further support, whereas all other such proofs presuppose *a priori* notions which Locke is unwilling to accept. Locke goes on to show that since God is not only powerful but also wise, He has designed the world for some purpose and that we find in everything a definite rule or pattern appropriate to its nature. God's purpose in creating man was that he should live according to reason. Two particular functions he is intended to perform are to worship God and to live in society with other men.

What Locke has endeavoured to establish so far is firstly that there exists a law-maker, i.e. some superior power to which man is rightly subject, and secondly that this law-maker has expressed a will, this being the law of nature. Thus in Locke's view it is reason in co-operation with sense-experience which reveals the existence of a natural law and also the dictates of this law. The whole of Locke's argument here is derived from the scholastics and there is nothing original about it except perhaps his insistence on the part played by sense-perception. Whether novel or not, one may wonder if the argument forms the right approach to the question at issue. When asking himself whether natural law can be known, Locke does not for a moment consider the possibility that this law, and expressions of value generally, might not belong to the class of things of which it makes sense to say that they are known in the ordinary sense of the word, i.e. that statements about them can be justified by reference to empirical facts, to rules of inference, or to self-evident truths. Locke does not face this issue and instead makes the *proper employment* of man's natural faculties a necessary and sufficient condition for the knowledge of natural law. Yet no matter to what extent men's senses and their reason are found to be efficient, this efficiency is no criterion by which to decide whether natural law is a proper object of knowledge. Such a decision must be derived from an analysis of the concept of natural law rather different from the one Locke offered.

The next step in Locke's argument again consists of an inference: he passes from what he has hitherto established to ethical assertions concerning the binding force of natural law. Having shown that man's reason can lead to the discovery of certain rational principles, he goes on to conclude that man is morally obliged to accept these findings of his reason. In other words, Locke starts with certain statements

of *fact*, i.e. statements about human nature, containing no judgments of value; he then passes to certain metaphysical and theological statements which contain no moral words either; from these statements he draws a conclusion about what men *ought to do*, as if the conclusion of a valid argument could contain anything, e.g. an '*ought*,' which is not contained in the premises. The point that it is impossible to deduce an ethical conclusion from premises that are non-ethical was made forcibly by Hume in a celebrated passage. 'In every system of morality,' he says, ' . . . I have always remarked, that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning human affairs; when of a sudden I am surprised to find, that instead of the usual copulations of propositions, *is*, and *is not*, I meet with no proposition that is not connected with an *ought*, or an *ought not*. . . . As this *ought*, or *ought not* expresses some new relation or affirmation, it is necessary that it should be explained; and at the same time that a reason should be given . . . how this new relation can be a deduction from others, which are entirely different from it.' Hume concludes from these observations that they would 'subvert all the vulgar systems of morality, and let us see, that the distinction of vice and virtue is not . . . perceived by reason.'

Let us consider briefly at which point in Locke's argument moral assertions are introduced. They appear in two contexts. One is where Locke advances his proof of God's existence and the 'voluntarist' theory (or rather definition) that law or men's duties are the expression of a superior will. For Locke then moral obligations are binding because they arise from God's commands. Now from saying that God commands us to do certain actions we cannot infer that we ought to do them, not even if we add the further premise that God commands us to obey His commands. The ethical statement concerning our duty to do certain actions can be derived only from another ethical statement such as that we ought to do what God commands. For Locke such a derivation is in fact possible since he argues that obedience to God's will is right, that is, obligatory. However any deduction from this premise or first moral principle, i.e. that a creature ought to obey the wish of his Creator, may be said to be compelling only if the premise is self-evident, which is doubtful in Locke's example, for it would not be self-contradictory to reject the principle that obedience to God's will is right. Moreover, the 'voluntarist' theory carries with it an implication which Locke obviously found dissatisfying, for together with the concept of will it introduces an arbitrary element into morality.

In order to make his theory more perfect, Locke attempts to derive moral obligation in some other way. He does this as part of his endeavour to arrive at a purely rational foundation of ethics. For

him human reason not only indicates or teaches what man's duties are, but at the same time makes his duties binding; it is thus a self-depending source of obligation. He maintains that natural law is coeval with the human race and that all men are subject to it since it is 'so firmly rooted in the soil of human nature.' In his view there is in fact a 'harmony' or 'conformity' (*convenientia*) between moral values and man's rational nature; for as man's nature is always the same so reason 'pronounces' a fixed and permanent rule of morals. One may wonder how from these views Locke can arrive at a theory of moral obligation. To derive natural law from man's rational nature, and this, in its turn, from God's wisdom in creating man such that certain duties follow from his constitution is to draw an ethical conclusion from entirely non-ethical premises. Therefore the same objection applies here as in connexion with the 'voluntarist' theory of law. To put the point differently one might say that reason can perhaps declare what type of action is in accordance with man's nature and is therefore in *some* sense necessary; but it does not thereby prove a moral obligation to perform the action. Grotius, Locke's contemporary, admitted that natural law, if defined as a dictate of right reason only *indicates* whether or not an action is morally necessary, and before him Suarez had pointed out that in this capacity it would be of the nature of a *directive* rule rather than of a law in the strict sense, a law having a binding force.

But this difficulty, Locke would argue, can be overcome by establishing a close analogy between moral knowledge and mathematics. The step he proposes now is a further example of a doubtful, if not illegitimate, passage from one kind of discourse to another. For from assertions about moral rules he passes to the assertion that the validity of these rules can be proved, and even shown to be necessary in the same way as a geometrical demonstration.

Locke advances his new argument in connexion with his notion of a harmony between natural law and man's rational nature. Thus he says: 'In fact it seems to me to follow just as necessarily from the nature of man that, if he is a man, he is bound to love and worship God and also to fulfil other things appropriate to the rational nature, i.e. to observe the law of nature, as it follows from the nature of a triangle that, if it is a triangle, its three angles are equal to two right angles.' By analogy with mathematical necessity Locke here endeavours to establish the *necessary* validity of moral rules. It is not altogether clear, however, whether in this passage he thinks of moral truths as self-evident principles or as deductions from self-evident principles. From another passage where he wants to make clear that man's duties necessarily follow from his very nature it might appear that he regards moral truths as self-evident; for he compares the way in which these are apprehended to the way in which men, so long as

they can see and the sun shines, must of necessity come to know the alternations of day and night and the differences between colours and between a curved and a straight line. The point he seems anxious to make in both passages is that from the concept of man's nature, *if suitably defined*, propositions concerning moral obligation would follow either analytically or by the rules of deductive inference, just as in mathematics, granting certain definitions, we accept some propositions as self-evident and others as demonstrable.

Here, in the setting of his early doctrine of natural law, we meet with the first example of Locke's celebrated contention that mathematics and morality are parallel in that they both contain self-evident truths and are capable of demonstration. Several of his contemporaries, e.g. Grotius, and also certain British moralists following him, e.g. Samuel Clarke, held a similar view. They found this view attractive for two reasons: firstly, it presented an improvement on a legislative ethics which they regarded as unsatisfactory because of the element of arbitrariness it contains; secondly, the view of the demonstrability of ethics seemed to them to allow moral rules to be regarded as independent of a superior will and at the same time as necessarily valid, i.e. not merely directive but binding. Whatever advantages Locke may have hoped to derive from this view, it raises difficulties for his argument in the essays.

There are two alternatives to be considered. On the one hand, Locke may have been tempted to accept moral *definitions* as the starting-point of a demonstrative deduction of ethics; he did so, for instance, in his mature work, the *Essay* (IV. III. 18), where he derives the proposition that 'where there is no property there is no injustice' from preliminary definitions of property as a right to anything and of injustice as the violation of that right. Here he is confronted with the same problem as in the case of someone trying to draw an ethical conclusion from non-ethical premises; for to deduce an ethical proposition from definitions should be just as impossible. On the other hand, if Locke accepts *self-evident* moral truths as the first principles of his demonstrative science of ethics the only justification he has for this is his belief in the analogy between moral knowledge and mathematics, or vision respectively. It is far from obvious, however, that such a parallel can be accepted. All that Locke has shown is that there are self-evident principles in mathematics and that certain empirical propositions can in some sense be called self-evident. Without a demonstration of the truth of the analogy on which he relies he cannot claim to have indicated the existence of self-evident *moral* propositions, or, for that matter, of a demonstrative science of ethics. In fact, moral ideas and judgments are very different from those of mathematics, and moral obligation is a kind of necessity that differs from logical necessity as it does from causal necessity. In other words,

any attempt to prove that a moral rule is binding is doomed to fail if it is considered to be the same as an attempt to prove that a geometrical demonstration is valid.

I conclude that, for the reasons I have given, Locke's theory of natural law is open to criticism; that because the difficulties which beset his theory are liable to be present in any philosophical defence of this law as a law of reason, no such defence can ever succeed. To say this is not to deny that natural law is acceptable as the basis of moral obligation if one regards it as a premise of thought which cannot be further justified by reason, i.e. as an article of faith, or an ideal. But this would be a very different issue from that which I have discussed in this paper, and because it is not primarily a philosophical problem, I do not propose to go into it further. It should be remembered, however, that Locke himself, in his later years, came to regard the idea of a law of nature as a mere premise of his thought, and that he must have perceived certain theoretical difficulties in this notion, for he could never bring himself to publish his own doctrine in the essays.

Here then is a summary of what I have tried to say in this paper. First I outlined the development of the idea of natural law from antiquity to modern times. Then I gave a brief account of what Locke says about natural law in his *Treatise of Government* and showed that as a rational law it is of fundamental importance for his political and moral philosophy. However, we find the most detailed account of his doctrine of natural law in recently discovered essays, the work of his youth, and it is because there he enters so fully into the particulars of this law that it is possible for us to subject his theory to a close examination and to point out exactly where the weaknesses lie. We saw that the chief difficulty arises from an ambiguity in the central notion, that of reason. I explained that this ambiguity is liable to give rise to confusions in any theory of natural law to the extent that such a theory represents an attempt to justify rationally the moral law as a law of reason. Such a process of justification would be in the form of a logical deduction; but since the main term, that of reason, would be employed in different senses, there are bound to occur illegitimate inferences from one *kind* of discourse to another. The inferences in Locke's argument are from factual statements concerning reason to definitions concerning reason; thence to statements about discoveries made by reason, from which certain ethical statements concerning the binding force of rational principles are derived; these statements, in their turn, are thought to be like statements in mathematics, i.e. capable of logical proof, an analogy which obscures the distinction between moral and logical necessity.

[The following is Locke's *Journal* entry for 15 July, 1678 (Bodleian

MS. Locke f.3, pp. 201–2), headed *Lex naturae*. The chronological context in which it falls is discussed in my edition of Locke's essays on natural law, pp. 66–7; the moral doctrine of which it forms a part is to my mind best explained by H. Sidgwick in his *Outlines of the History of Ethics*, 6th ed., 1946, pp. 175–8. I have modernized the spelling and punctuation of the passage, published here for the first time.

'God having given man *above other creatures of this habitable part of the universe* a knowledge of himself which the beasts have not, he is thereby under obligations, which the beasts are not, for knowing God to be a wise agent; he cannot but conclude that he has that knowledge and those faculties which he finds in himself above the other creatures given him for some use and end. If therefore he comprehends the relation between father and son and finds it reasonable that his son whom he has begot (only in pursuance of his pleasure without thinking of his son) and nourished should obey, love, and reverence him and be grateful to him, he cannot but find it much more reasonable that he and every other man should obey and revere, love and thank the author of their being to whom they owe all that they are. If he finds it reasonable to punish one of his children that injures another, he cannot but expect the same from God the Father of all men, when any one injures another; if he finds it reasonable that his children should assist and help one another and expects it from them as their duty, will he not also by the same reason conclude that God expects the same of all men one to another? If he finds that God has made him and all other men in a state wherein they cannot subsist without society and has given them judgement to discern what is capable of preserving that society, can he but conclude that he is obliged and that God requires him to follow those rules which conduce to the preserving of society?']

University of Durham.

HEGEL'S "SCIENCE" AND WHITEHEAD'S "MODERN WORLD"

ROBERT C. WHITTEMORE

> "I have never been able to read Hegel: I initiated my attempt by studying some remarks of his on mathematics which struck me as complete nonsense. It was foolish of me, but I am not writing to explain my good sense."—A. N. Whitehead.[1]

As a living metaphysician Hegel has been a long time dead.[2] His "system," to all appearances, lives on only in the histories of philosophy. The thinkers of the twentieth century have, virtually without exception, come to regard the *Science of Logic* as a purely abstract spinning out of arbitrary and very bloodless categories, and the *Encyclopedia of the Philosophical Sciences* is usually taken as being simply a more concise and comprehensive sample of the same. The *Phenomenology* survives—to be interpreted as an essay in existentialism.[3]

Is such an attitude "foolish"? I propose to argue that it is. And yet—it cannot be denied that there exist many good and apparent reasons why such an attitude should prevail. For one, hegelian rationalism is always assumed to be absolutely inconsistent with positivism or empiricism in any of its contemporary forms, and for better or worse these viewpoints dominate twentieth-century thought. Existentialists have, with some success, disputed the claim that the rational is the real, and most metaphysicians have found the concrete universal strangely evanescent. Hegel's pretentiousness has alienated many. And surely there is in all the literature of philosophy no author more turgid or obscure.

No interpreter of Hegel can afford to overlook these objections, but this does not mean that they are necessarily cause for dismay. Such decisiveness and formidability as they possess is due in no small part to the failure of anti-hegelians to look more closely to the epistemological and ontological presuppositions underlying their objections. Empiricists, existentialists, and scholastically oriented metaphysicians are alike at fault in their habitual tendency to take as final truth and misinterpret that sense-experience which others

[1] *Essays in Science and Philosophy* (New York, Philosophical Library, 1948), p. 10.

[2] This is, of course, not true as regards his status as a social and political philosopher. In these realms he is, if anything, too alive!

[3] See, for example, Richard Kroner's Introduction to Hegel's *Early Theological Writings* (Chicago, University of Chicago Press, 1948). J. Loewenberg suggests a similar interpretation in his Introduction to *Hegel Selections* (New York, Scribner's, 1929).

before Hegel have exposed as questionable. Obscurity and turgidity are lamentable traits, but even so they need not imply the error or triviality of that which they characterize. Pretentiousness is not local to rationalist philosophies. The significance of the hegelian philosophy for the modern world should not and does not depend upon its ability to reconcile its viewpoint with that of more popular philosophies, or upon its success in explaining away the literary and psychological shortcomings of its author.

If the philosophy of Hegel has importance in our day, be it no more than as a prolegomena to one main current of contemporary cosmology, it is because this system accords much more closely with present-day cosmological theory than has hitherto been generally supposed: it is because this method, this dialectic, approaches to an adequate description of and affords a significant insight into the operations of the universe as hypothesized by the science of our time.

I am keenly aware that such claims, assuming that they can be established, involve a somewhat radical reinterpretation of the hegelian system as usually envisaged. I believe, however, that such a reinterpretation can be justified, if for no other reason than because I am convinced that what is involved is not really a reinterpretation at all, but rather an overdue placing of the system of Hegel in its proper historical perspective. For this philosophy is not what so many have made it out to be, *i.e.* a study in the dialectic of rationalistic abstraction. It is rather an essay in cosmology; it is, to use Hegel's own phrase, a "Speculative Logic" containing "all previous Logic and Metaphysics," and as such it constitutes, so I shall argue, an enduring contribution to that type of cosmological thinking whose prime contemporary exemplification is Whitehead's *Process and Reality*.[1]

That such is really the case can best be illustrated by examining the basic tenets and presuppositions of the hegelian philosophy in the light of the contemporary development. Thus our first task in what follows will be to show how at virtually every significant point the system of Hegel is not only in accord with the cosmological scheme envisaged by contemporary process philosophy, but in some instances constitutes an actual improvement on that scheme. This accomplished, we should then be in a position to reappraise the value and importance of Hegel's "science" for the modern world.

[1] That Hegel's philosophy does possess affinities with modern science is, of course, not my discovery. The idea is to be found in the form of scattered hints throughout the various works of R. G. Collingwood, and Professor E. E. Harris has discussed it at some length in his recent *Nature, Mind and Modern Science* (New York, Macmillan, 1954). However, the specific affinities between Hegel and Whitehead have never, to the best of my knowledge, been explored in any detail.

II

In his Preface to *Process and Reality*, Whitehead cites nine "prevalent habits of thought" which, he thinks, must be "repudiated in so far as concerns their influence on philosophy."[1] Two implications of this list command our attention: (1) the repudiation of all nine "habits" appears in complete accord with the philosophical presuppositions[2] underlying the modern scientific outlook. Thus—as might be expected; (2) the philosophy of Hegel is in complete agreement with that of Whitehead as concerns the repudiation of *all* of these "habits."

This second statement requires some justification. I do not think that many will quarrel with the assertion as concerns "habits" i, iii, iv, v, vi, and vii (see footnote 2). Hegel would scarcely be Hegel did he "distrust" speculation. Few thinkers are less governed by the "faculty-psychology" than he. One has only to reflect upon the root meaning of the hegelian dialectic to notice its incompatibility with the "subject-predicate form of expression," and with the conception of "vacuous actuality." The refutation of the "sensationalist doctrine of perception" is the first order of business in the *Phenomenology*, and Hegel's strictures against Kantian Idealism are too well known to require repeating here. But the case is not so obvious as regards "habits" ii, viii, and ix. The *Logic* is generally

[1] *Process and Reality* (New York, Social Science Book Store, 1941), p. viii. The nine "habits" repudiated are (i) "The distrust of speculative philosophy"; (ii) "The trust in language as an adequate expression of propositions"; (iii) "The mode of philosophical thought which implies, and is implied by, the faculty-psychology"; (iv) "The subject-predicate form of expression"; (v) "The sensationalist doctrine of perception"; (vi) "The doctrine of vacuous actuality" (vii) "The Kantian doctrine of the objective world as a theoretical construct from purely subjective experience"; (viii) "Arbitrary deductions in *ex absurdo* arguments"; (ix) "Belief that logical inconsistencies can indicate anything else than some antecedent errors."

[2] According to Professor Errol Harris, "The philosophical theory demanded by the modern outlook must . . . maintain five main theses: (i) that mind is immanent in all things; (ii) that reality is a whole, self-sufficient and self-maintaining, and that coherence is the test of truth of any theory about it; (iii) that the subject and object of knowledge are ultimately one—the same thing viewed from opposite (and mutually complementary) standpoints; (iv) that events and phenomena can adequately be explained only teleologically, and (v) that the ultimate principle of interpretation is, in consequence, the principle of value." *Nature, Mind and Modern Science*, p. 206. "That Hegel's theory embodies the five principles . . . as characteristic of the modern conception of nature needs," he remarks somewhat later (p. 229), "no argument. The reader may even suspect that I have derived them from Hegel and then transplanted them into the modern context."

With the addition that the test of truth is not simply coherence, but coherence plus correspondence (this, in order to insure adequate representation of the empirical element), I would agree completely with Professor Harris.

conceived to be the apotheosis of a linguistic *tour de force*—even by some hegelians. Moreover, who is a greater sinner than Hegel when it comes to "arbitrary deductions"? And can the hegelian system survive the exposure of "logical inconsistencies"?

If we concern ourselves solely with the adequacies of language as a tool for the description of simple sense-experiences, then Hegel's repudiation of "habit ii" seems plainly indicated in the conclusion to the section on sense-certainty in the *Phenomenology*.[1] For ". . . the This of sense, which is 'meant,' cannot," he there remarks, "be reached by language, which belongs to consciousness, *i.e.* to what is inherently universal." But, you may object, if language is the vehicle of the universal, then must it not always be adequate to that universal? The purposes of the dialectic as exemplified in the *Science of Logic* and in the Logic of the *Encyclopedia* would appear to require some such assumption—at least as far as the elucidation and deduction of the categories is concerned. However, as G. R. G. Mure[2] and Morris Cohen[3] have pointed out, if we take account of the difference in the list of categories as presented in the *Science of Logic* and as given in the Logic of the *Encyclopedia*, it would seem that Hegel did not regard even this "habit" as unbreakable.

As to whether or not Hegel is guilty of "habit viii" (arbitrary deductions in *ex absurdo* arguments), this depends almost entirely upon what patterns of thought Whitehead here has reference to. If Whitehead is referring to scholastic modes of argumentation, and I suspect that he is, then the question is scarcely relevant to Hegel, who, moreover, hardly ever employs the *ex absurdo* form of argument. On the other hand, if the charge be confined to that of making arbitrary deductions then Hegel is surely guilty. Whatever excuse can be offered for him on this point will depend upon whether he is also committed to "habit ix." I think that he is not, and this for the same reason as has been advanced for acquitting him of "habit ii," *i.e.* the differences between the categories as envisaged in the *Science of Logic* and as presented in the Logic of the *Encyclopedia* tend to support the view that Hegel regarded the system of categories as somewhat flexible, and if this is true, then far from being guilty of "habit ix" he might cite his repudiation of it as his defence with regard to "habit viii"!

So much by way of justification. Such further evidence for the conclusion that Hegel and Whitehead are in agreement as concerns

[1] *The Phenomenology of Mind*, translated by J. B. Baillie (New York, Macmillan, 1949), 2nd revised edition, p. 159.

[2] A detailed discussion of the corrigibility of the categories is to be found in Mure's *A Study of Hegel's Logic* (Oxford, Clarendon Press, 1950), pp. 323–9, 355, 366.

[3] Cohen, Morris, "Hegel's Rationalism," *Philosophical Review*, Vol. 41 (1932), p. 286.

a mutual repudiation of these nine "habits" should become clear in the sequel. Of course, such agreement, in itself, is a minor matter. However, taken in conjunction with our other conclusion, *i.e.* that the philosophic presuppositions underlying the repudiation of these "habits" are the same as those underlying the modern scientific outlook, it acquires somewhat greater importance, since it points to a connection, as yet vague and ill-defined, between the philosophy of Hegel and the contemporary view. Its real significance, however, emerges when we consider the establishment of this affinity in the repudiation of philosophic habits in the light of a prolegomena to an affinity of a much wider cosmological significance, the affinity, that is, between the hegelian conception of "dialectic" and Whitehead's envisagement of "process."

III

There exists a prevalent misconception, in part derived from Plato and the Scholastic logicians, in part stemming from Hegel's insistence upon investing old terms with new meanings, in part due to the dictionary, that "dialectic," because of its character as a logical principle, is abstraction—and nothing more. It matters not that the whole of the hegelian production constitutes a flat repudiation of this misconception. It persists, and undoubtedly will continue to do so for so long as the conviction prevails that the logical as such is alien to the temporal, that there can be no logic in process or of process. That a logic of process is possible, that logic itself involves "becoming" as a character is, I would argue, a central theme not only of the *Phenomenology* and the *Science of Logic*, but of *Process and Reality* as well. And while we cannot here undertake to recapitulate the cases therein made, we can indicate the parallelism of Hegel's and Whitehead's conclusions, and note their importance for one another. For in the last analysis, the explanation of the logical character of becoming is the explanation of the synonymity of "process" and "dialectic."

This synonymity is implicit in the definitions of the terms themselves. "Process," remarks Whitehead, "is the stage in which *the creative idea* works towards the definition and attainment of a determinate individuality. Process is the growth and attainment of a final end."[1] "Process is the becoming of experience."[2] It is, I think, significant that not only is the rational element fundamental to the definition (note the reference to the "creative idea" and to the growth of ends) but that this "creative idea," this "growth" can, in this context, only be expressed in terms of dialectic—in the hegelian

[1] *Process and Reality*, p. 227. My italics. [2] *Ibid.*, p. 252.

sense of the word. The relevant correlative passage is to be found in the *Philosophy of Right*:

> The concept's *moving principle, which alike engenders and dissolves* the particularizations of the universal, I call dialectic, though I do not mean that dialectic which takes an object, proposition, etc., given to feeling or, in general, to immediate consciousness, and explains it away, confuses it, pursues it this way and that, and has as its sole task the deduction of the contrary of that with which it starts—a negative type of dialectic commonly appearing even in Plato. . . . The loftier dialectic of the concept consists not simply in producing the determination as a contrary and a restriction, but in producing and seizing upon the positive content and outcome of the determination, because it is this which makes it solely a development and an immanent progress. Moreover, *this dialectic is not an activity of subjective thinking applied to some matter externally but is rather the matter's very soul putting forth its branches and fruit organically*. This development of the Idea is the proper activity of its rationality, and thinking, as something subjective, merely looks on it without for its part adding to it any ingredient of its own. To consider a thing rationally means not to bring reason to bear on the object from the outside and so to tamper with it, but to find that the object is rational on its own account; here it is mind in its freedom, the culmination of self-conscious reason, *which gives itself actuality and engenders itself as an existing world*. The sole task of philosophic science is to bring into consciousness this proper work of the reason of the thing itself.[1]

One quotation does not establish a doctrine, although no other passage seems to me to express so completely the whole of Hegel's aim and meaning. But surely the implication is here plain enough that process is as much presupposed by this definition of Hegel's as reason was in the (above-mentioned) Whiteheadian definition of process. Hegel's employment of such phrases as "moving-principle" and "immanent progress," his usage of such words as "soul," "engender," "organic"—these alone should suffice to convince the existentially-minded that dialectic—at least as Hegel conceives it—is not simply a shuffle of abstractions.

But at this point we must take account of an objection which, on the surface, looks decisive. The objection, namely, that while this hegelian conception of dialectic may well imply process, that while Hegel may at times even use this particular term to describe transition,[2] this implication and this usage is not the same as that of Whitehead, and should not be identified with it. For Hegel is speaking of a category, and Whitehead has reference to an act. Hegel is simply developing the implications of an idea, whereas Whitehead is attempting a description of an existential fact.

There are two replies that might be made to this. The first and more traditional one being that here, as usual in Hegel criticism, the

[1] *The Philosophy of Right*, translated by T. M. Knox (Oxford, The Clarendon Press, 1942), pp. 34–5. My italics.

[2] *The Phenomenology of Mind*, p. 157 f.

objector is indulging himself in the rather arbitrary assumption that the categories are pure abstractions, the "other" to concrete existents, whereas, in fact, it is ever Hegel's intention to argue that thought and thing, idea and existent, are in truth but moments each of the other, and as such inseparable.

Such a reply will not, of course, satisfy either empiricist or existentialist, and it is perhaps right that it should not do so, since in a way it begs the question, *i.e.* as to just how the gap between the empirical and the ideal is to be bridged. Put in this way, the objection constitutes the central problem of all cosmology, and thus any reply to it will, of necessity, take the form of an exposition and defence of that cosmological scheme which Hegel has devised to bridge the gap. For only from this (cosmological) perspective is it possible to see that process (as conceived by Whitehead) and the hegelian dialectic stand in any relation at all.

In its most general form this cosmological scheme comprises the entire development of the basic triad, Idea-Nature-Spirit as set forth in the *Encyclopedia of the Philosophical Sciences*. In its more specifically cosmological form it constitutes the Philosophy of Nature, and it is mainly with this latter that we have here to do. In the famous last paragraph of the Logic of the *Encyclopedia* Hegel records how the Philosophy of Nature begins with the resolution of the Absolute Idea "to let the 'moment' of its particularity, or of the first characterization and other-being, the immediate idea, as its reflected image, go forth freely as Nature."[1] "We began," he adds, "with Being: where we now are we also have the Idea as Being; but this Idea which has Being is Nature."[2] The same conception, somewhat more fully expressed, is to be found at the close of the *Science of Logic:*

> For the Idea posits itself as the absolute unity of the pure Notion and its Reality, and thus gathers itself into the immediacy of Being; and in doing so, as totality in this form, it is *Nature*.—But this determination is not a perfected becoming or a *transition*. . . . Rather, the pure Idea, in which the determinateness or reality of the Notion is itself raised to the level of Notion, is an absolute *liberation*, having no further immediate determination which is not equally *posited* and equally Notion. Consequently there is no translation in this freedom; the simple Being as which the Idea has determined itself, remains perfectly transparent to it, and is the Notion which in its determination stands fast by itself. The transition here therefore must rather be taken to mean that the Idea freely releases itself in absolute self-security and self-repose. By reason of this freedom the form of its determinateness also is utterly free—the externality of space and time which is absolutely for itself and without subjectivity.—In so far as this externality is only in accordance with the abstract immediacy of Being, and is comprehended by consciousness,

[1] *The Logic of Hegel*, translated from *The Encyclopedia of the Philosophical Sciences* by William Wallace (Oxford, The Clarendon Press, 1892), 2nd edition, section 244, p. 379. [2] *Ibid.*

it exists as mere objectivity and external life; but in the Idea it remains, in and for itself, the totality of the Notion, and Philosophy related to Nature as divine knowledge."[1]

In these two very obscure statements lies the whole crux of the matter, the positing of the unity-in-difference of the empirical and the Ideal.

They have been variously interpreted. Alexander has stressed the notion of "process."[2] Errol Harris sees in them, the outlines of the story of the self-evolution of mind in nature.[3] Collingwood delineates the meaning of "externality."[4] But in all interpretations the implica-

[1] *The Science of Logic*, Vol. 2, translated by W. H. Johnson and L. G. Struthers (New York, Macmillan, 1951), pp. 485–6.

[2] Alexander, Samuel, "Hegel's Conception of Nature," *Mind*, Vol. II (1886), p. 499. "The logical Idea is the whole world of natural and intelligible things in its abstract form, but it is no mere reposeful conception: it is a process, the process of dialectic. It is not merely a process for us, with our habits of learning, but in itself a process, and therefore, like the Platonic dialectic after which it is named, identical with its method."

[3] Harris, Errol E., "The Philosophy of Nature in Hegel's System," *The Review of Metaphysics*, Vol. 3 (1949), pp. 224–5. "The mind first sees itself as the world come to consciousness and then sees the world as the process in and by means of which that coming to consciousness is brought about. Having found its own identity with the world in knowledge, mind goes back to the world as Nature to view it as the process in and through which knowledge comes to be, and which, at the same time, comes to be the object (or content) of knowledge. As the process is throughout one of growing self-consciousness, it is a process at once of the emergence of the knowing mind and of the world's (the process itself) becoming known. Mind, in short, discovers its own immanent presence in nature. . . . The much disputed transition from the Logic to the Philosophy of Nature is, therefore, simply the passage from one stage to the next in the development of self-consciousness. Mind comes to know itself even more fully and completely, and in the higher stages of the development it is constantly turning back upon itself, making itself in the prior phase its object. It makes itself, as knowledge, its own object in logic: it makes itself, as object identical with subject, as mind immanent in the 'external world' (the conception which forms the consummation of the Logic) its own object in Nature-philosophy; and it makes itself, as the emergent from Nature, its own object in the Philosophy of Spirit."

[4] ". . . what is the differentia of nature, the peculiarity which distinguishes it as a whole from the Idea on the one hand and from Mind on the other? Hegel's answer is that nature is essentially reality as external, the external world. Here external does not mean external to *us*. . . . What is meant by calling nature the external world is that it is a world pervaded and characterized by externality, a world in which everything is external to everything else. Nature, then, is the realm of outwardness; it is a world (or rather *the* world) in which things are outside each other. This outwardness has two forms: one in which everything is outside every other thing, namely, space; the other in which one thing is outside itself, namely, time. The idea of nature, according to Hegel, is the idea of a reality thus doubly broken up, spread out or distributed in space and time." Collingwood, R. G., *The Idea of Nature* (Oxford, The Clarendon Press, 1945), pp. 126–7.

tion is clear: Nature is Mind externalized, the appearance of Mind, which is at once no mere appearance and yet not full reality. The empirical is the ideal in its otherness,[1] and however real we take this otherness or externality to be, the destiny of Nature is to be transcended and transmuted in Spirit.[2]

> The fact is that in the Idea of Life the self-externalization of nature is *implicitly* at an end; subjectivity is the very substance and conception of life—with this proviso, however, that its existence or objectivity is still at the same time forfeited to the sway of self-externalism. . . . Mind is the existent truth of matter—the truth that matter itself has no truth.[3]

Has Hegel then explained Nature by explaining it away? This is a charge that has often been made, and if you presuppose that the denial that Nature is something in and for itself is equivalent to denying Nature then perhaps Hegel is guilty. For it is plain that he does not consider Nature to be simply a matrix or receptacle, into which at the appropriate moment of creation Mind is infused. To conceive nature in such fashion is hardly to overcome dualism. But if not a matrix, what then? At this point we can, I think, appeal with profit to a definition of Whitehead's. In *Science and the Modern World*[4] Whitehead defines nature as "a structure of evolving processes." "The reality," he adds, "is the process." When we compare this with our previously noted description of dialectic as the "concept's moving principle . . . the matter's very soul putting forth its branches and fruit organically," the result is, I suggest, the discovery of a synonym. For what else is dialectic if not a "structure of evolving processes"? It will be said that the two are not really synonymous since "dialectic" as here employed encompasses logical and physical process, whereas Whitehead has reference to physical process alone.[5] But are logical and physical process separable in essence or in act—for either Hegel or Whitehead? According to Hegel, logical process is the presupposition of physical process.

[1] "In nature . . . mind actualizes itself only as its own other, as mind asleep." Hegel, G. W. F., *The Philosophy of Right*, p. 279.

[2] "But this next resolution of the pure Idea—to determine itself as external Idea—thereby only posits for itself the mediation out of which the Notion arises as free existence that out of externality has passed into itself; arises to perfect its self-liberation in the *Philosophy of Spirit*, and to discover the highest Notion of itself in that logical science as the pure Notion which forms a Notion of itself." *The Science of Logic*, Vol. II, p. 486.

[3] *Hegel's Philosophy of Mind* (translated from the *Encyclopedia of the Philosophical Sciences* by William Wallace). Oxford, The Clarendon Press, 1894, section 389, p. 13.

[4] *Science and the Modern World* (New York, Macmillan, 1948, p. 106).

[5] I pass by for the moment the collateral objection suggested by Hegel's denial of natural (temporal) evolution that there can be no synonymity, since, on Hegel's view, time is not, to use Whitehead's phrase, "taken seriously." But on this topic, more below.

Dialectic is the "moving principle" alike characterizing thought and thing. The universal is the truth of the particular.

> Actuality is always the unity of universal and particular, the universal dismembered in the particulars which seem to be self-subsistent, although they really are upheld and contained only in the whole. Where this unity is not present, a thing is not actual even though it may have acquired existence.[1]

According to Whitehead,

> every so-called "universal" is particular in the sense of being just what it is, diverse from everything else; and every so-called "particular" is universal in the sense of entering into the constitutions of other actual entities.[2] The organic philosophy does not hold that the "particular existents" are prehended apart from universals; on the contrary, it holds that they are prehended by the mediation of universals.[3]

One has but to compare the two views in order to see that the latter is but a restatement in Realistic terms of the former, that the former is but an Idealistic interpretation of the latter, and that in neither is it possible to disjoin the Realistic and Idealistic moments. What difference there is—is no more than a matter of emphasis.

The same point of view, seen from a somewhat different perspective, finds expression as the Whiteheadian denial of "simple location," a denial whose analogue is to be found in the *Phenomenology*[4] as the denial of the immediacy of the "here" and "now."

Finally, one has but to recall that process, as envisaged by both Whitehead and Hegel, is always teleological in order to see the arbitrariness of the empiricist assumption that universal and particular, the logical and the physical, can be in these systems meaningfully disjoined—even in abstraction.

The affinity between the systems of Whitehead and Hegel becomes most marked when we turn to the conception of that which secures the unity and direction of the process and its structure. As it is with Whitehead, so also is it with Hegel that God (Spirit, Mind, Absolute) is the chief exemplification of those metaphysical principles on which the hegelian cosmology rests.

> *The Absolute is Mind (Spirit)*—this is the supreme definition of the Absolute. To find this definition and to grasp its meaning and burthen was, we may say, the ultimate purpose of all education and all philosophy: it was the point to which turned the impulse of all religion and science: and it is this impulse that must explain the history of the world.[5]

1 *The Philosophy of Right*, p. 283.
2 *Process and Reality*, p. 76.
3 *Ibid.*, p. 230.
4 *Phenomenology of Mind*, pp. 151–60.
5 *Philosophy of Mind*, paragraph 384, p. 7.

"The Absolute is Mind." As substance become subject,[1] as *eternal essence before the creation of Nature and of a Finite Spirit*,[2] God (the Absolute, Spirit, Mind) is the pure creative concept prior to all physical process, is, following Whitehead's expression, "primordial." As the Truth of the realm of Nature, whose dialectic is the manner of Mind's coming to self-consciousness, whose process is the unfolding of the Absolute as the physical world, God is, following Whitehead's expression, "superjective." As that which as Spirit is its own content of consciousness, that in which all finite moments are sublated and transcended (aufgehoben), as Mediator, God is, following Whitehead's expression, "consequent." Following the analogy of the Trinity, a conception to which Hegel frequently recurs, God as Absolute Idea (Logic) is pictorialized as God the Father; as dirempted into otherness (Nature) God becomes God the Son; as reunited unity of self and other, God is God the Holy Ghost. This characterization is mirrored in the Whiteheadian system in the conception of God as primordial (Father), as consequent (Son), as superjective (Holy Ghost).

Both systems are thus—panentheisms,[3] since for both God is at once the Reality, of which the universe in process is an appearance, and the self-creative source of that Reality. Thus from the standpoint of theology the explanation of the cogency of the hegelian cosmology for the present age becomes the explanation of how this system fares in comparison with such other contemporary expressions of panentheism as, for example, those of Berdyaev, Hartshorne, Buber, Iqbal, Radhakrishnan, and, of course, Whitehead. Within the scope of this paper it is, of course, impossible to enter into any detailed comparisons. The comparative systems, in any case, speak for themselves. Nonetheless, some general evaluation of the hegelian position *vis-à-vis* the contemporary view is essential, if only because of the existence of several significant differences (which we have now deliberately passed over) between the hegelian cosmology and its twentieth-century counterparts. It is to the consideration of these differences, and to the objections arising out of them, that we must now turn.

IV

There are, as I see it, three fundamental objections to the hegelian view as presented above. The first of these, the objection that the

[1] "In my view—a view which the developed exposition of the system itself can alone justify—everything depends on grasping and expressing the ultimate truth not as Substance but as Subject as well." *The Phenomenology of Mind*, p. 80.

[2] *Science of Logic*, Vol. I, Introduction, p. 60.

[3] Panentheism, and not pantheism, since this latter view is, on Hegel's view, properly descriptive only of those systems for which God qua Substance of the universe has failed to achieve individuality as Subject.

system fails to bridge the gap between empirical and ideal, we have already encountered. Whether or not in the argument of the past several pages, *i.e.* the argument that there is, in fact, no gap, you judge this objection to have been fairly disposed of will depend on your assessment of the system as a working cosmological hypothesis. This, in turn, will, to some degree, depend upon the ability of the system to meet the two objections yet to be raised. However, we can at this point consider what is implied in the idea of a "working cosmological hypothesis."

The first, and probably the most important, factor is that it is only and precisely this—a *hypothesis*. Which means, for all practical purposes, that the basic test of satisfactoriness will be the success of the system in meeting the twin criteria for minimal adequacy, namely, logical coherence and conformity to the data of experience. In other words, the system must renounce any claim to the possession of *final* truth, must be, in truth, an "open system."[1]

Is Hegel's system then an "open system"? "Precisely the opposite," is the usual reply. But here again, I suggest, the usual reply is wrong. The evidence is not massive, but there are indications throughout Hegel's work that he did not claim what many have rather absurdly held him to claim, *i.e.* that philosophy ends with Hegel. "Whatever happens," he remarks in his last book,

> every individual is a child of his time; so philosophy too is its own time apprehended in thoughts. It is just as absurd to fancy that a philosophy can transcend its contemporary world as it is to fancy that an individual can overleap his own age. . . . If his theory really goes beyond the world as it is and builds an ideal one as it ought to be, that world exists indeed, but only in his opinions, an unsubstantial element where anything you please may, in fancy, be built.[2]

Philosophy, for Hegel as for anyone else, draws and must in future continue to draw its material from empirical observation and research. One has but to read them in order to see that at every stage in his philosophies of Nature, Spirit, and History, Hegel has deliberately and with full consciousness of its importance used the results of empirical inquiry. This is plain enough. But the important point in all this is that by so doing Hegel has nowhere succeeded in completely sublating this empirical element. At every stage of the

[1] Since many thinkers would hold the phrase "open system" to signify a contradiction in terms, it is best that we lose no time in defining what we mean by it. By "open system" I mean, and I understand such exponents of the open system as Alexander and Whitehead to have meant, that system which (1) contains within its categoreal scheme provision for the modification or transcending of that scheme or any part of it. For example, Whitehead's view of natural law as subject to the vagaries of process; (2) allows for integration of the data of the future—considered as future. For example, Alexander's conception of God as in the making.

[2] *Philosophy of Right*, p. 11.

dialectic (in Logic, Nature, and Spirit) we are left with what G. R. G. Mure has called an "unsublated residue,"[1] and we are left with this for the simple reason that no philosophy, hegelian or otherwise, can ever sublate without residue the endless empirical flow. In God this flow may be absorbed, sublated, transcended—use what word you will. But for Hegel as for Whitehead, even God experiences the future as future. After growth *to* self-consciousness there remains forever future growth *in* self-consciousness. Logical and physical process alike must, on this view, eternally burst beyond the confines of an eternal present. "*Bis hier ist das Buwusstseyn gekommen*,"[2] remarks Hegel at the close of his Philosophy of History. Consciousness has reached this far, but this cannot be the end:

> For experience just consists in this, that the content—and the content is spirit—in its inherent nature is substance and so object of consciousness. But this substance, which is spirit, is the development of itself explicitly to what it is inherently and implicitly; and only as this process of reflecting itself into itself is it essentially and in truth spirit. It is inherently the movement which is the process of knowledge—the transforming of that inherent nature into explicitness, of Substance into Subject, of the object of consciousness into the object of self-consciousness, i.e. into an object that is at the same time transcended—in other words, into the notion. This transforming process is a cycle that returns into itself, a cycle that presupposes its beginning, and reaches its beginning only at the end.[3]

"The end is the beginning." With this conception Hegel apparently takes his place with those philosophers for whom the future is open and process is the measure of Reality. I say "apparently," because it is precisely at this point that the second fundamental objection to the hegelian view must be interposed and met. The objection, namely, that Hegel's denial of *natural* evolution is (1) utterly incompatible with the assertion of an "open system" in any form, and (2) utterly at variance with the evolutionistic presupposition common to all contemporary process philosophies. If this objection can be sustained, it would seem that we have no alternative but to concede that our enterprise is wrecked.

[1] "Hegel states clearly that the Philosophy of Nature depends for its material upon the results of natural science. 'Not only,' he writes in the *Philosophy of Nature* (section 246), 'must philosophy agree with the experience of Nature (*Natur-Erfahrung*), but natural science (*Physik*) is presupposed by and conditions philosophical science. . . .' The passage must, I think imply that although the Understanding and the *aperçus* of Nature which constitute its content are *Begriffsbestimmungen* on the ascending scale of Nature and Concrete Spirit, yet they are not sublated without residue in the dialectic of that scale, and so must appear as a *never ending* source of material for philosophy to reconstitute." *A Study of Hegel's Logic*, pp. 323–4. See also pp. 316, 329–68.

[2] "That is as far as consciousness has reached."

[3] *Phenomenology of Mind*, pp. 800–1.

Now that Hegel does reject the theory of *natural* evolution can hardly be denied. For Nature, he tells us in the *Encyclopedia*[1] is always

> to be regarded as a system of grades, of which the one necessarily arises out of the other, and is the proximate truth of the one from which it results—but not so that the one were *naturally* generated out of the other. . . . It has been an inept conception of earlier and later "Naturphilosophie" to regard the progression and transition of one natural form and sphere into a higher as an outwardly actual production. . . . Thinking consideration must deny itself such nebulous, at bottom sensuous, conceptions, as in especial the so-called *origin*, for example, of plants and animals from water, and then the origin of the more highly developed animal organizations from the lower.

Does then such an expression as this—which in the light of contemporary biological and geological theory is clearly a mistake—mean that the hegelian cosmology has no value in the present age? It all depends, I suggest, on (1) what meaning you attach to the term "evolution," and (2) the role and status of evolution in modern cosmology. As regards the first, it is to be noted that Hegel is not rejecting evolution *per se*. On the contrary. *Logical* evolution, exemplified by the dialectic process, is the foundation of the entire hegelian system. What Hegel is arguing, and are we quite sure that he is wrong?, is that the admission of a doctrine of purely *natural* evolution is a mistake, if only because it so clearly implies that Nature is something in and for itself apart from Mind or Spirit. If we deny that Nature has a history, which history is the story of *natural* evolution, it is, so Hegel would contend, only because the sole history worthy of the designation "history" is the history of the self-evolution of God, the history of the process of the Absolute's attainment of consciousness of itself as Absolute. Evolution, therefore, on Hegel's view, is not rejected: it is transvalued. As transvalued, natural evolution is then to be regarded as sublated within logical evolution, and if this is so, then Hegel's denial of natural evolution is not at all the system-wrecking fact it first appeared to be. Of course, were Hegel acquainted with the scientific outlook of today, it is probable that rather than deny natural evolution he would choose to interpret it as an appearance (in the Bradleian sense) of logical evolution. In any case, the significant point is that such a reinterpretation of natural evolution is entirely consonant with his basic position—as we have interpreted it.

If now, in this light, one turns to consider the status of evolution in modern cosmology, one finds, strangely enough, that this reinterpretation of natural evolution as the appearance of logical evolution is not only consonant with, but is apparently required by, any

[1] Section 249. Quoted by W. T. Stace, *The Philosophy of Hegel* (London, Macmillan, 1924), p. 313.

modern cosmology other than that of naïve realism. As Whitehead remarks in *Science and the Modern World,*

> Nature exhibits itself as exemplifying a philosophy of the evolution of organisms subject to determinate conditions. Examples of such conditions are the dimensions of space, the laws of nature, the determinate enduring entities such as atoms, and electrons, which exemplify these laws. But the very nature of these entities, the very nature of their spatiality and temporality, should exhibit the arbitrariness of these conditions as the outcome of *a wider evolution beyond nature itself, and within which nature is but a limited mode.*[1]

And Collingwood notes that,

> . . . this is a remarkable fact about modern cosmology, that the physical science of to-day has arrived at a view of matter and energy which so far agrees with the implications of Hegel's theory of nature, that a philosopher-scientist like Whitehead can restate Hegel's theory (not knowing that it is Hegel's, for he does not appear to have read Hegel, so far as I can judge) and allow that theory to take him wherever it likes, setting his sails to it with a good conscience and cheerfully resolving the concept of nature, as he says himself, into the concept of pure activity.[2]

However, there remains the third fundamental objection, and it is perhaps the most difficult of all, since it centres about and presupposes a theory of the nature of Time. The objection is simply this: When the hegelian theory speaks of process and dialectic, it speaks not of a process or dialectic in Time, but of a logical (eternal) progression of the Idea. As Alexander has remarked *vis-à-vis* Hegel's theory of Nature,

> The theory of evolution is a theory of the history of nature, and whether it be true or false it is a series of events in time; but the hegelian development is an eternal process, which is present in its totality at any one moment of nature's existence.[3] Evolution is a history of how things in nature come to pass; dialectic is the process by which one idea logically leads on to the higher idea which is implicit in it and is its truth. Evolution is a history of a process in time; dialectic is a history of ideas which form a process not in time.[4]

In Whitehead's phrase, the objection is—that Hegel has failed to "take Time seriously."

But what is Time? The question would require a book to answer, and the definitive book has yet to be written. For Alexander, Time is (poetically) the Mind of Space; literally, as space-time, it constitutes the very matrix of Reality. Whitehead's view is even more obscure. Time, he insists,[5] is not to be thought of in the Newtonian

[1] *Science and the Modern World,* p. 135. My italics.

[2] *The Concept of Nature,* pp. 127–8.

[3] Alexander, Samuel, "Hegel's Conception of Nature," *Mind,* Vol. II (1886), p. 502.

[4] *Ibid.,* p. 518.

[5] *The Concept of Nature* (Cambridge, Cambridge University Press, 1920), p. 65.

sense as a real flowing container of facts. Rather is it always to be regarded as a character of the realization of the coming to be of every act of experience. A duration, Whitehead tells us,[1] is a spatialized epoch, is that which is required for the realization of any given event. Realization, he adds, is to be conceived of as the becoming of Time in the field of extension. Temporalization is realization, is atomic succession. Time is sheer succession of epochal durations,[2] is a character of the locus of that unison of becoming which is an actual entity.[3] Apart from its realization as a character qualifying the growth of entities, Time has no meaning whatever.

Now if these views of Alexander and Whitehead constitute taking Time seriously, and "taking Time seriously" be taken as implying that Time (or more properly, space-time) is something in and for itself, then it must be conceded that Hegel does not take Time seriously, since for him "Time is just the notion definitely existent, and presented to consciousness in the form of empty intuition."[4] "Time," he adds, "is the pure self in external form, apprehended in intuition, and not grasped and understood by the self, it is the notion apprehended only through intuition."[5] Or as it is put in the Philosophy of Nature, Time, dialectically emergent out of Space, is, together with Space, the primary character of Nature itself. Which is to say, that Time like that Nature which it characterizes is—appearance.[6] Time is the quality of that appearance of the Absolute which is Nature.

If, on the contrary, "taking Time seriously" does not imply that Time (or space-time) be taken as being something in and for itself, and Whitehead's rejection of the Newtonian conception would seem to indicate that for him at least Time is not so to be regarded, then it becomes an open question as to just what "taking Time seriously" does imply. As a minimum, we might say that it implies the essen-

[1] *Science and the Modern World*, p. 183.
[2] *Ibid.*
[3] *Process and Reality*, pp. 195–6.
[4] *The Phenomenology of Mind*, p. 800.
[5] *Ibid.*
[6] The hegelian conception here is, I think, close enough to that of Bradley to warrant quoting the latter as explanation of what is implied by the statement that "Time is appearance." "Time," Bradley remarks in *Appearance and Reality* (Oxford, The Clarendon Press, 1951), p. 185, "is not real as such, and it proclaims its unreality by its inconsistent attempt to be an adjective of the timeless. It is an appearance which belongs to a higher character in which its special quality is merged. Its own temporal nature does not there cease wholly to exist but is thoroughly transmuted. It is counterbalanced, and, as such, lost within an all-inclusive harmony. The Absolute is timeless, but it possesses time as an isolated aspect, an aspect which, in ceasing to be isolated, loses its special character. It is there, but blended into a whole which we cannot realize."

tiality of Time as a character or an adjective of Reality. But if this is the case, then it is just possible that the hegelian view of Time might qualify, since to say that Time is an appearance, sublated in the Absolute, transcended and yet not lost, is to say that Time is, in some sense, real.[1] Time is appearance, but it is not *mere* appearance. Time, for itself, is nothing, yet it is not an illusion. Such a conception may to many seem to differ somewhat radically from those conceptions advanced by Whitehead and Alexander, but nonetheless, it represents a conception which at least stands as a live alternative for any teleologically centred modern cosmology.

And yet we must, I think, admit that this is no completely satisfactory solution. We must at this point keep always in mind that the cosmology of Hegel, however suggestive and significant we judge it to be, is, at best, a prolegomena to the contemporary views, and not a replacement for them. If our answers to the three basic objections have served no more than to give pause to those who would arbitrarily consign the system of Hegel to the cosmological scrapheap they have served their purpose.

V

What then is the contemporary significance of Hegel? Sidney Hook finds it to be the fruitfulness of the hegelian method as a tool for social, political, and historical analysis.[2] Croce too has emphasized the merit of the method.[3] But both tend to deprecate the system as such, and therein, I think, lies their fault. For if any one thing should be clear by now, it is that method and system are absolutely undivorcable. This is implicit in the hegelian contention that we have not explained anything until we have explained everything. It is to be found throughout all of Hegel's work. The method is the presupposition of the system and conversely, apart from the system the method is—empty abstraction. To suggest, as does Hook,[4] that

[1] As Sidney Hook remarks in an article on "The Contemporary Significance of Hegel's Philosophy," *Philosophical Review*, Vol. 41 (1932), p. 249, "Although Hegel officially denies the reality of time, he recognizes its existence whenever he uses the words 'finite' and 'appearance.' Under the aspect of time the world confronts man as an ever-enduring process. Under the aspect of eternity the world is a completed system. But to the process belongs metaphysical primacy."

[2] "The Contemporary Significance of Hegel's Philosophy," *Philosophical Review*, Vol. 41 (1932), pp. 256 ff.

[3] Croce, Benedetto, *What is Living and What is Dead in the Philosophy of Hegel* (London, Macmillan, 1915).

[4] "The Contemporary Significance of Hegel's Philosophy," *Philosophical Review*, Vol. 41 (1932), p. 259.

Hegel's insight can be saved if instead of reading history as the necessary evolution of the spirit of freedom, or the autobiography of God, we view it more naturalistically as the slow and uncertain development of mind and the growth of reasonableness in the affairs of men

is to commit an error all the more pernicious because of its façade of common sense. For to imply that all we have to do to insure Hegel's contemporaneity is to abandon idealistic metaphysics for naturalism is to voice anew that perennial sophism, which from the standpoint of whiteheadian cosmology vitiates all naturalisms, positivisms, and empiricisms alike, the sophism, that is, of so foreshortening one's cosmological perspective as to avoid the necessity for facing up to the metaphysical presuppositions of one's naturalism.[1] This particular sophism is, of course, not native to naturalism. Existentialists too commit it when they think to reduce the hegelian cosmology to a personal perspective on the universe. But the fact is, as it is to the everlasting credit of Hegel to have so clearly seen, that all such reductionism, naturalistic or existentialistic, must fail—if for no other reason than that it leaves so much to be explained.

In a century such as ours in which so many philosophers are content with partial formulations, it is not the least of Hegel's merits to have provided a system which, whatever its defects of detail, satisfies the basic requirement of any cosmology; to leave no character of Being or Becoming unaccounted for.

Whether this system can stand today in its entirety as an alternative to its twentieth-century counterparts is another matter. The dogmas of science Hegel was called upon to explain or incorporate have long since been replaced. Indeed, it is a tribute to the greatness of his ideas that they have survived to transcend the limitations of their nineteenth-century scientific framework, since it is the inadequacy of this framework, a framework which is fundamentally incommensurate with Hegel's cosmological view, that makes it possible to call in question the validity of Hegel's equation of dialectic and process. It is because of this framework also that so many difficulties arise in connection with the notion of Time, difficulties which it must be admitted the hegelian view never cleanly disposes of. On the other hand, Whitehead is no more faultless than Hegel as concerns his conception of Time—especially as it relates to God. And from a more positive standpoint, Hegel's conception of deity as self-evolving, universe-encompassing Mind or Spirit provides a unity

[1] As Errol Harris so pertinently remarks, ". . . those who have revolted completely against idealism and have set their faces firmly against anything with the least suggestion of Hegelianism have succeeded only in repeating, in modern guise and in a new technical jargon, the philosophical position appropriate to an age of scientific progress prior to Hegel's time—a position which in our own day is utterly outdated and has long been obsolete." *Nature, Mind and Modern Science*, p. 255.

of concept lacking in its whiteheadian counterpart. Finally, considered as a philosophy of history, there is a continuity of development in the hegelian system. which continuity is not nearly so apparent in the more recent cosmological expositions. In sum, while we cannot with good metaphysical conscience adopt the hegelian cosmology intact, neither can we afford to lose its insights. Terminology changes. A Whitehead or an Alexander will marshal his thoughts in his own language. But in the basic ideas expressed he surely owes more to the Berlin master than he has ever acknowledged.

Tulane University of Louisiana.

OBJECTIVITY AND REASON[1]

Professor ERROL E. HARRIS

The need for objective standards of judgement is acutely felt in the bewilderment created by the world situation of our time, a bewilderment that is partly the result of the rapid advance of the natural sciences, with its profound effects upon metaphysical doctrines, religious beliefs and moral attitudes, and partly due to the intractable problems which have arisen in social and political fields. The progress of the sciences, while it seems to have given us secure knowledge of the world about us, has, at the same time, undermined confidence in the criteria of belief and judgement in the conduct of affairs which hitherto had served to guide mankind. Bereft of these the majority of men are unable to see a clear way through the complexities of modern political and economic life and are overwhelmed by the major problems that confront them. As examples of the major perplexities with which mankind is faced today, I shall mention only three:—

There is, first, the problem which faces the scientist, whose discoveries, despite their enormous possibilities for good, have become in their application to the methods of warfare a menace to the very continuance of life on earth. Can such a scientist with a clear conscience continue his researches? To do so is to put into the hands of politicians instruments of destruction from which none of us may escape: yet to refuse to do so is to hamper the growth and progress of human knowledge and human achievement. Can he, further, submit to the restrictions on intellectual liberty and the free exchange of scientific information so essential for scientific advance, which the national importance (and danger) of his discoveries forces the governments of modern states to impose upon him? If he flouts or resists these restrictions he is open to the charges of irresponsibility and disloyalty; yet if he allows considerations of patriotism to weigh with him, he may be charged with lack of objectivity. But by what objective standard or criterion can he reach a decision so vital for the pursuit of his vocation, and for the welfare of mankind?

Secondly, there is the problem of world peace. If a new major war were to break out, the use of thermo-nuclear weapons could not be prevented, and the chance of survival for human civilization (or even human life) would be extremely slender. Yet what means have we found of insurance against such an outbreak? No improvement has been made in methods of international politics which, in the past half-century have failed to prevent and may even be said to have led inexorably to two major wars, which very nearly extinguished western civilization, as the next almost certainly will. But any

[1] An inaugural lecture delivered in the University of the Witwatersrand.

effective international control of sovereign nations is prevented by the existence of implacably hostile and apparently irreconcilable ideologies—rival standards of appraisal in political affairs which, because they conflict, cannot all be "objective" and which all equally claim to be—though some of them, in the same breath, inveigh against and repudiate objectivity.

And, finally, there is the race problem, presenting us in South Africa (as well as in the world at large) with the apparent choice between the continuance, on the one hand, of western European culture at the sacrifice of the principles most vital to that culture, and the observance, on the other hand, of western European moral and political principles in our private and public contacts with the non-European races, at the risk of being overwhelmed by a more primitive culture. In judging of matters in which this conflict is involved, we tend to be influenced strongly by personal prejudices or sectional interests, which confuse our vision. But if we are to avoid these, by what objective standard can we judge?

In these perplexities, we cast about for certainties—for criteria of judgement, independent of prejudices, fears, ideologies and superstitions. But our bewilderment is increased in part by the variety and the inadequacy of such criteria as are suggested, and in part by the widespread denial that there are any to be found. The examples I have given are drawn from the sphere of morals and politics, but there are others in which the demand for ultimate criteria is felt. Primarily (and in a sense all-embracing) is the sphere of knowledge. We assume that there is an objective and absolute standard of truth, and that it is the task of the logician to reveal it. And knowledge has several forms. The question of criteria is somewhat different in the field of mathematics from what it is in that of the natural sciences, different again in the field of the social sciences, and the matter of religious truth and its criterion is yet another question. Secondly, the criterion of moral worth and of political justice is not *prima facie* the same as that of theoretical truth. And thirdly, the criterion of artistic merit presents another and yet more difficult problem.

Traditionally it has been considered the function of the philosopher to provide the knowledge of ultimate and objective standards in all these fields. But many modern philosophers have disowned their responsibility for any such task; and, whether we approve or not of this renunciation, we are forced to confess that philosophers as a class have spoken with so many different voices that they have succeeded in giving us no very definite guidance. It is not my intention to make a new attempt to discover these ultimate standards, but only to consider some of the consequences of the demand that they should be sought. I propose to discuss the implications both of asserting the

existence of objective standards, and of denying it, and I shall try in conclusion briefly to suggest a possible method of resolving the difficulties in the way of either alternative.

I. Claimants for Objectivity

(*a*) *The Appeal to Reason.*

(i) The search for an objective standard springs from the desire for a final court of appeal, reference to which will settle all differences of opinion; and perhaps the earliest claimant to such ultimate authority is Divine Revelation, which has the advantage of complete universality covering all fields in which an objective standard can be demanded. But the difficulties besetting the appeal to this authority are as familiar as they are numerous. The Deity never speaks *in propria persona* nor *coram populo*, but always in the secret privacy of the consciousness of an individual devotee, who thereafter claims the divine authority for his pronouncements. The claim itself, accordingly, becomes subjective and we must seek an objective standard for deciding its genuineness. "The authority of the Scriptures," St. Augustine is reputed to have said,[1] "is greater than all the powers of the human mind." But what of the authority of St. Augustine? Without derogation of his saintliness, we are still forced to admit that, being but a man, his judgement was subject to human limitations. It follows that whatever he may tell us about the authority of the Scriptures must be subject to the same limitations. The difficulty is accentuated when, as is commonly the case, several conflicting pronouncements are all made with the same claim to divine authority. And even when there is no such competition between alternative versions of the Divine Word, its interpretation is liable to give rise to persistent dispute, for which the remedy would be the very objective standard which the claim to divine revelation leaves us still to seek.

(ii) Dispute, however, in its more dignified form is an appeal to argument, and the most respectable arguments are couched in the form of reasoning. It, therefore, becomes appropriate for theologians and philosophers to assert that Reason provides the ultimate standard. Wherever it can be demonstrated that judgement is subject to rational principles, its objectivity is considered to be established, and the appeal to reason is regarded as final. I shall argue later that there is a sense of "reason" in which its claim to objectivity is admissible. But this is not the sense in which it has always been used and understood. Plato thought of it as a set of purely intelligible "forms" by which we can measure the truth of our judgements as an artist measures the likeness of his picture by reference to the model. The simile, however, will not survive pressure. The supposed intelligible

1 Vide W. H. Werkmeister, *A Philosophy of Science* (New York 1949), p. 11.

forms are not given to us for inspection, in knowledge, or in morals, or, for that matter, in any of the spheres where an objective standard is sought. The truth of propositions, especially in morality, cannot be tested by comparison with any model or any standard case. I need not dilate upon the difficulties of the Platonic theory of Forms (or Ideas). The literature on the subject is extensive enough. It will be sufficient to notice that Plato's pictorial and metaphorical accounts of the Forms cannot (and were not meant to) be taken literally. The Forms are not to be imagined as visible models of earthly things, but, remembering Plato's insistence that they are purely intelligible objects, we must surely conclude that they are the products of thinking, logical categories or universal concepts, arrived at by reflexion upon our common experience. But when so interpreted, they can no longer be thought of as models, and there can be no possibility of comparison or likeness between them and our ordinary judgements. And if the Forms are really a product of our own thinking and reflexion, they cannot serve as objective standards, because it is just this thinking and reflexion which stands in need of an objective test of its soundness and validity.

The traditional conception of reason, derived from Aristotle and adopted by the Schoolmen and (with some modification) by Descartes, was one according to which reason operates in two kindred ways. First, it intuits simple, self-evident truths, about which there can be no possibility of doubt, and to the knowledge of which the only alternative is blank ignorance. Secondly, it intuits with similar immediacy the logical connexions between two such simple and self-evident truths, and so, by a process of formal illation (or demonstration), linking a series of simple intuitions in a continuous chain, it can deduce conclusions from them which are not *ab initio* immediately self-evident. But it is more than doubtful that any examples can be produced of simple and purely self-evident principles that are not merely trivial and tautological, which can be immediately intuited by the intellect. And it is nowadays generally agreed that purely formal, linear deduction can give no information about concrete matters of fact—those matters in judging of which we have most need of an objective standard.

Professor Jacques Maritain, following St. Thomas, describes the intuitive function of reason as an immediate vision of Being.[1] He does not, however, explain in any intelligible way what he means by Being, or what sort of intellectual vision the mind can experience. He equates Being with God, but the substitution of the name does not help us to understand. The vision is not a sensuous vision, yet it is given no intelligible content; indeed, Maritain confesses that "it transcends concepts and ideas" and remains "a mystery for the

[1] Vide: *The Range of Reason* (London 1953), pp. 6 and 87 ff.

intellect." But a mystery can serve neither as a standard of judgement nor as a test of truth, and it is difficult to see how it can be the starting point of a rigorous or informative process of logical illation.

(iii) Another form in which the claim to objectivity has been made is associated both with divine revelation and with reason. It is held that the objective standard is the Law of Nature, which at times has been identified with the Law of God, at other times with the Law of Reason, and at yet other times with both at once. No theorist of Natural Law, however, has ever been able to make clear how it can be unmistakably discovered. Grotius, Hobbes, Locke and Rousseau all appealed to it, but each gave a different version of its rules, none wholly compatible with any other. Natural Law has not been, and (we may well suspect) cannot be, codified. It has, as Professor d'Entrèves points out[1], been postulated as a system of universal law, as the rational foundation of ethics, as the ideal of jurisprudence and as the objective standard for just legislation. "It is," he says, "the quest for some immutable standard or pattern independent of [men's] choice and capable of carrying conviction."[2] But it is surely a quest which has never succeeded. Its protagonists have always been able to eulogise it in these absolute terms, but have never been able to agree upon its content. The reason for this is, moreover, not far to seek. The very notion of Natural Law sets it apart from and in contradistinction with human experience. Being ideal and immutable, it must be divorced from the constantly changing standards which men in the course of history have recognized and adopted. It is none of these, they must be judged by it. But these historical standards are the fruits of human experience, and the one thing of which human beings have had no experience is a common yet immutable and ideal code of laws (whether moral or political). There is not and never has been a law known to men which was "independent of their choice and capable of carrying conviction." Accordingly, Natural Law may be given whatever content the jurist, the political and moral philosopher, or the theologian sees fit; and if we ask what it really enjoins, the answer is: *quot homines tot sententiae.*

This sort of appeal to reason for the supply of an ultimate standard is bound to fail, because the kind of standard required must be absolute and incorrigible. But to presume knowledge of such a standard is to presume omniscience. Short of that, if any such standard exists, it cannot be known; and if it is not known, it cannot be used as a criterion of judgement. Yet a standard of judgement by its very nature is one by which men actually judge.

(*b*) *The Appeal to Sense*

The failure of reason in these forms to provide an objective standard

[1] A. P. d'Entrèves, *Natural Law* (London, 1951). [2] Ibid., p. 11.

has led some thinkers to seek for it in a different direction. The physical world of material things seems solid, permanent and independent of our whims and fancies, could we not find an objective test, at least of truth, by reference to it? As our knowledge of the physical world seems to come to us most directly and immediately through the senses, sense-observation is widely held to be the only sure test of truth. This is the source of the well-known "verification principle," which denies truth, and even sense, to any statement, if there is no sense-observation which would be relevant to its verification. The view has, no doubt, been inspired by the success of experimental science, and rests on the belief that the appeal to sense-data is essentially scientific; but the conception of science implied, widespread though it be, is a hasty and mistaken view, for sense-perception cannot *by itself* provide us with any criterion of truth. The scientific theories of Copernicus and Newton are not the obvious deliverances of the senses. Shaw, in *St. Joan*, brings this home to us in La Trémouille's remark to the Archbishop, who has explained that Pythagoras was "a sage who held that the earth is round, and that it moves round the sun." "What an utter fool," replies La Trémouille, "couldn't he use his eyes?"

Several eminent scientists bear witness to the fact that the pure deliverances of sense do not serve as the final touchstone of scientific truth. Eddington, speaking as an astronomer, declares that "we do not believe our eyes unless we are first convinced that what they appear to tell us is credible."[1] And Dr. Agnes Arber[2] while asserting that "all direct evidence concerning biological questions depends upon the data the mind obtains from sense impressions" makes it quite clear that these are not bare data, but are affected both directly and indirectly by technical advances "which reorientate the mind towards natural things." "This reorientation," she continues, "in its turn educates the senses, which are far more dependent on the mind than is sometimes assumed."

The assumption that sensation gives us direct information about the existence and nature of material things is altogether false. In no case does this ever happen. An experience, for instance, which seems so simple and direct as that of seeing a match-box in a good light under "normal" conditions, is a much more complicated epistemological fact than is commonly realized. What I see is no more than certain colours in certain shapes, and these I am entitled to identify with, at most, three sides of the match-box. I see nothing of the other three sides, or of the inside of the box. Yet when I say that I see the match-box, I mean, without any qualification, that I am aware of the presence of a six-sided solid object, with an inside, the existence of

[1] *The Expanding Universe* (Cambridge, 1933) p. 17.

[2] Vide *The Mind and the Eye* (Cambridge, 1954) p. 13 and cf. pp. 115 ff.

which I do not doubt. Yet none of this has been conveyed to me by sense, and it needs verification as much as does any speculative hypothesis. The colours and shapes that I see need not necessarily represent a material thing, any more than did Macbeth's vision of the dagger. They usually are not the exact colours and shapes which I take the object (e.g. the match-box) to have (the shape may be perspectivally distorted and the colour modified by reflected light) and my awareness of the unseen parts of the box is the result in part of imaginative supplementation, and in part of a quasi-inferential process. Whatever I may see, the actual existence of an object before me still has to be proved. And, as to the knowledge of the nature of the object: that, if it can be finally determined at all, requires very considerable research. It is not simply a matter of its "real" shape and colour. The physicist, for instance, will tell me that the box consists chiefly of empty space, separating from one another a vast number of electrical charges, which move about at immense speeds. This I cannot see or feel, and for the physicist it is an inference from innumerable data of various kinds (not all of them sensory) forming a systematic body of evidence.

Now the physical theory is only an immensely more complex example of what we commonly do when, on receiving certain sense-experiences, we conclude to the existence of certain material objects. The important point is that, however practised we have become at doing it, and however immediate our knowledge may seem in consequence, we do in an important sense *conclude* to the existence of what we observe. It is not given to us purely in sense. Consequently, not the simplest report of observation, like "There is a match-box" is verifiable purely by sensing. Its verification not only requires a large number of observations and sense-data, but it requires also a knowledge of their mutual relations: From what points of view were they perceived? What is their temporal relation to one another? What conditions of observation obtained in each case? (e.g. In what sort of light? Were any of them mirror-images or otherwise illusory?) Now complex inter-relations of sense-observations and the conditions under which they are made are not themselves revealed in sensation. They are the result of a process of ordering and co-ordinating, interpreting and inferring, without which the truth about the material world, if it is accessible to us at all, is not to be had. Sense itself provides us with no correlations or interpretations. These are the work of thought ordering a chaotic sensuous material, which William James described as "blooming and buzzing confusion" and Kant declared to be "as good as nothing" when regarded as a form of knowledge.[1] "If there are things that exist independently of us,"

[1] The truth of this view has recently been confirmed by the experience of the congenitally blind whose sight has been restored in adult life by modern

writes Bertrand Russell (to quote a somewhat hostile witness), "they cannot be the immediate objects of our sensations."[1]

If this is the case, sense-perception cannot provide us with the test and standard of truth for which we search. Its apparent deliverances are themselves in need of confirmation, and the means of assurance which are available to us, involving as they do ideal construction, interpretation and inference, are the very methods for the soundness of which we demand an objective standard.

II. The Denial of Objective Standards

It is not surprising, therefore, to find that both scientists and philosophers, who begin with the belief in sense-observation as the test of truth, end by denying in principle that there are any objective standards of judgement. But I shall try to show that just as the assumption that there are objective standards has so far been defeated by the demand for their discovery, so the assertion that there are and can be none involves self-contradiction.

(i) This is easy to show in the case of the scientific renunciation of the claim to truth. Some modern physicists have ceased to claim that their theories are the truth about the material world; they are, they would say, at best probable, and must be regarded only as provisional: the most satisfactory account so far given of the observed phenomena. As far as this statement goes it is unexceptionable, but if it is taken to imply the assertion that there is and can be no ultimate standard of truth for the physicist (as is sometimes assumed), it becomes a contradiction. In the first place, what is probable must be an assumed or measurable distance from certainty. "Probable," if it means anything at all means "probably true." This is its common usage and any meaning which would deprive it of all relation to truth or certainty would make it altogether irrelevant to epistemology. If a theory is

surgery. This is described by Professor J. Z. Young: "The patient on opening his eyes for the first time gets little or no enjoyment; indeed, he finds the experience painful. He reports only a spinning mass of lights and colours. He proves to be quite unable to pick out objects by sight, to recognize what they are, or to name them. He has no conception of a space with objects in it, although he knows all about objects and their names by touch. 'Of course,' you will say, 'he must take a little time to learn to recognize them by sight.' Not a *little* time, but a very, very long time, in fact years. His brain has not been trained in the rules of seeing. We are not conscious that there are any such rules; we think we see, as we say 'naturally.' But we have in fact learned a whole set of rules during childhood." *Doubt and Certainty in Science.* J. Z. Young (Oxford, 1951) p. 62.

There can be no doubt that a similar process is involved in learning to perceive through the other senses besides vision, if we had but the means of discovering it.

[1] *The Problems of Philosophy* (Oxford, 1950) p. 13.

said to be probable, therefore, the speaker is presupposing some standard of truth by which to measure its probability (either in precise numerical terms or in a general and imprecise way). Secondly, to maintain that a theory is the most satisfactory provisional account that has so far been given of observed phenomena is to presume a standard by which to decide between less and more satisfactory accounts. The modesty of the physicist, therefore, is a tacit presumption of the existence of an objective standard, even though it does not reveal its nature; and it cannot without contradiction be used to deny the possibility of such a standard.

(ii) The philosophers who abjure objectivity are more absolute in their denials of the absolute. In modern thought there is a widespread tendency (either explicit or by implication) to repudiate ultimate standards of any kind. The old traditional questions about Truth, Goodness and Beauty have been abandoned as pseudo-problems by a large and influential school, while others propound positive doctrines which embrace subjectivism as an end in itself.

Existentialism is an example of the second type. Those of its exponents who pay homage of any sort to reason, do so in obscure language, which, if it can be understood at all, seems to offer no clear standard for objective judgement. Karl Jaspers tells us[1] that "reason has no assured stability," that it is "opposed to the tendency to free oneself from the necessity for all further thought by once and for all accepting irrevocably fixed ideas." It derives its criterion from its own nature, he says, yet does not acknowledge this criterion as absolutely valid. Though it seeks the absolute unity, with which it strives to become one, this "one" which reason seeks is unattainable. There may be some element of truth in these statements and we might accept them, if we could understand them, but as they stand they give us little hope that reason is the source of objectivity. Nor is it in the least clear from what Jaspers says of it what the absolute unity is towards which reason is supposed to strive. Consequently, if it can serve as an objective standard it is one that remains wholly mysterious—a standard, in short, by which it is impossible to judge.

Other existentialists pay less respect to reason. In fact, they reject it. Kirkegaard abandons himself to despair for very lack of objective certainty. He embraces faith as the "category of despair" and revels henceforward in what is acknowledged to be absurd, accepting Tertullian's motto: *Credo quia absurdum.* Sartre and others adopt a similar position, identifying personality with irrational and unmotivated will (*"gratuité"*) as the essence of its existence. Aimlessness, irrationality, absurdity and despair are the notes which form the tonic chord of this philosophy, cutting it loose from any objective standard of judgement. It follows that, as Professor J. H. Paton says,

[1] *Reason and Anti-Reason in Our Time* (London, 1952) pp. 39–42.

"existentialism is not a theory to argue about, but rather an attitude to decide about—either for or against—unless indeed we decide to ignore it altogether."[1] In short, it is a very extreme and uncompromising form of subjectivism.

But, of course, irrationalism is recognizable only by reference to a rational standard; absurdity is measured by self-consistency and coherence, and even *gratuité*, the completely undetermined choice, is recommended, we must presume, as in some sense good, and this claim must be defensible by reference to some standard, or it can have neither appeal nor importance. If every such standard is rejected we may safely do as Paton suggests and decide to ignore it altogether.

(iii) More serious are the various forms of positivism that have recently invaded, especially, the English-speaking world. Modern Logical Positivism begins from the verification principle and issues almost at once in two conclusions. One is the rejection of metaphysics because its propositions are in principle unverifiable by sense-observation. The determination of ultimate standards (other than sense-data) is in this way metaphysical, and we must expect to see their existence denied in every branch of philosophic criticism. The second is the reduction of logical necessity to tautology. Logical propositions are necessarily true, not because they can be verified by sense-perception, but because they give no factual information, and are the tautologous consequences of the definitions of terms. Consequently, logic becomes the study of linguistic usage either common or (in the various sciences) technical. The logical consequences of a statement depend upon the use of the terms contained in it. By that use they are defined, or conversely, as they are defined, so their use is determined. Logic, accordingly, is the study of the rules for the usage of words in a language and the new philosophical method is linguistic analysis.

This method is the direct descendent of the verification principle and though the more extreme forms of positivism have recently themselves been subjected to analysis, in the interests of more popular linguistic usages, and contemporary empiricists often announce their rejection of logical positivism, what they reject is not the fundamental assumption of the primacy of sense-perception, but only certain inconvenient accompaniments of that doctrine, and any criticism affecting the foundations of the earlier positivism will affect the linguistic analyst likewise.

A corollary of the notion of logic canvassed by this school is that logical necessity depends in the last resort on arbitrary convention. The meaning and usage of words is not determined by anything in the nature of things, but is an arbitrary symbolism which has either become customary or may be determined at will by mutual agreement.

[1] *In Defence of Reason* (London, 1951) p. 214.

Consequently, logic becomes irrelevant to truth, and the relevance of reason becomes questionable. Truth must, on this view, be entirely inductive. If it is not the direct agreement of observation statements with the actual occurrence of sense-data, it must be the agreement between empirical generalizations and a probability estimate based on the constant conjunction of observed phenomena in the past. Doubts cast on the validity of inductive argument have been pronounced by exponents of this doctrine to be "unreasonable," but what sense of "reason" is here intended it is difficult to understand—unless it means simply what conforms to the doctrines of empiricism.

We have already seen, however, that the deliverances of the senses provide no ultimate standard of truth or verification, and with the collapse of the positivist verification principle the whole doctrine collapses, because no standard of verification remains. No appeal to reason is possible, for inductive reasoning is held to derive its efficacy from sense, and deductive reasoning to be no more than the development of tautologies resting upon arbitrary linguistic convention. When these conclusions are applied to the theory from which they follow, it is itself resolved either into an arbitrary recommendation for linguistic usage (with nothing to recommend it), or an empirical hypothesis in principle unverifiable, and so, according to its own strictures, meaningless.

Nevertheless, it has inspired kindred doctrines in ethics and political theory, the effect of which is to deny the existence of ultimate standards as well as the need for them. Statements of moral and political appraisal are not normally tautological nor can they be empirically verified in the way that ordinary factual statements can be. What observations, for instance, could verify the assertion that it is *right* to fulfil promises? It has been maintained, therefore, that such statements are not factual and that they have no descriptive force, but are mere expressions of feeling or are veiled commands. The implication inevitably is that they are purely subjective, for, if they are in no way descriptive, it makes no difference whether they are said to be prescriptive (commands) or simply emotive. If a command is not a mere expression of feeling, it must be based (if only implicitly) on a judgement that is relative to some objective standard, but in that case moral statements would have descriptive force; if "Do so-and-so" means more than "I want (or would like) you to do so-and-so," it implies "Your doing so-and-so would be good," and that entails (if "good" is not to be simply what I like) that "So-and-so conforms to a certain standard"—which is a factual assertion. Accordingly, we need consider only the consequences of reducing moral appraisals to expressions of feeling.

It is obvious that, on this view, no objective standard is admissible because feelings cannot be referred to any kind of standard. It is

precisely for this reason that there can be no dispute over personal tastes. A purely subjective morality of the sort alleged would thus be wholly irrational, and policies based on moral prescriptions would, in consequence, be purely arbitrary. Feelings are inconstant and ephemeral phenomena and if moral appraisal does no more than express feelings, no such appraisal can ever have universal application. "X is good" must mean: "I feel favourably disposed to X." But there is no guarantee that I shall continue to feel in this way. As soon as we attempt to import a universal significance into the statement it becomes to some extent descriptive. "X is always to be favoured," or, "All X's are to be favoured" implies reference to a fact other than feeling which would justify the statement—i.e. the fact that X is of a certain character. Accordingly, a purely emotive ethic would make the distinctions between good and bad, right and wrong, which determine our choices, indefinitely variable and entirely arbitrary. And that is tantamount to annulling the distinctions altogether. To do this, however, is to do away with morality and to deny the common facts of moral experience. For the distinguishing feature of morality is its prescription of duties, which do not depend on mere inclination or feeling, and rules with universal application. The emotive theory of ethics must, therefore, be false, for if it were true there would be no morality and so no moral phenomena for it to explain.

The confusion which has led thinkers to propound such a theory is one between mere feeling and approval. They commonly speak of a feeling of approval as that which moral statements express. It is, of course, true that moral appraisals are expressions of approval or disapproval—but that is by no means the same as expressions of mere feeling. Approval is a judgement involving a criterion of value, and, as it is commonly used, the word implies a criterion other than feeling. "I approve of smoking" is not the same as "I like smoking," for it commits me to permitting the practice by others for whom my pleasure is irrelevant. If we suspect that an expression of approval is no more than one of liking, we regard it as insincere. Further, there is no absurdity in saying "I like smoking, but I disapprove of it," or "Though it would give me great pleasure to knock him down, I disapprove of violence." This is not to deny that feelings of certain recognizable kinds accompany approval and disapproval, but only that they are the same thing. Nor can approval be a feeling of some other kind than mere liking, because to approve is to judge worthy of choice, and judgement is not feeling. Moreover, the criterion of the judgement cannot be a feeling of approval, because any such feeling presupposes the judgement. I feel favourably disposed towards "X" because it is of a certain kind, and I cannot then explain of what kind it is by reference to the feeling. In other words, I approve of something because I think it good and I cannot say that I think it good because

I approve, without either tautology or circularity. I must, therefore, think it good for some reason independent of my feeling.

It is, therefore, no mistake to interpret the emotive theory as a repudiation of all moral values, and its consequences cannot be evaded by denying that it is such a repudiation, in the manner attempted by both Mr. Richard Robinson and Professor Ayer[1]. They both argue that to deny objective ground for moral evaluation is no refusal to evaluate in particular cases. Even indifference, they assert, is a morally evaluative attitude and it is not one that the theory entails. But that is precisely why the theory involves self-contradiction. If it were true, there could be no moral evaluation or approval in the proper and accepted sense of the word, for that implies reference to a standard other than personal feelings. But even indifference is recognized by the exponents of the theory as a morally evaluative attitude, and this fact in itself is evidence against the theory.

III. The Failure of Subjectivism

If, on the one side, attempts to discover an objective standard have not succeeded, subjectivism, on the other, affords us no means of escape from the problem, and, whatever its form, its failure is inevitable, because it involves the paradox of scepticism. To assert that there is no objective standard is to reduce all theories and all preferences to prejudices, and this must apply equally to the subjectivist theory itself and to the decision to adopt it. But if the doctrine is no more than the personal prejudice of the thinker it is in no way superior to, and has no better claim to credence than, any that contradicts it and we are as free to disbelieve as to believe it. Worse than this, however, is the unavoidable fact that the very statement of a theory is an implicit claim to truth which presupposes the sort of objectivity of which subjectivism is the explicit rejection.

Yet its prevalence in contemporary thought has had far-reaching effects. Reason has been reduced to a mere instrument of the mind for calculating the means to ends that are not themselves the product of reason. Reason, it is widely held, is what Hume declared it to be, and rightly so; the slave of the passions. Logic has been thoroughly formalized and so becomes an instrument or calculus—a sort of machine which, properly operated, unerringly gives the right answer to any formal problem put to it. Sometimes it is even suggested that life might be wholly mechanized, even to thinking, if only we knew enough about electronics. No salutary exception is made even for that

[1] *Vide:* Richard Robinson "The Emotive Theory of Ethics," in *Proceedings of the Aristotelian Society*, Sup. Vol. XXII, 1948, and A. J. Ayer "On the Analysis of Moral Judgement," *Horizon*, Vol. XX, No. 117, reprinted in *Philosophical Essays* (London, 1954).

knowledge; and the fact that such mechanization itself presupposes creative thinking is overlooked. But whether it is presumed or not, creative thinking is not regarded as the subject matter of logic.

Dr. Max Horkheimer has examined the consequences of this position in a penetrating study,[1] and finds it to be the cause of our bewilderment and the disease of our civilization. Reason, reduced to an instrument, in its turn reduces everything to a mere means, while it is incapable of determining any end. It devotes itself (as science) to the subjugation of nature, but it cannot prescribe any ultimate purpose for this subjugation. Because it is subjective, everything objective is reduced to mere external fact and is extruded from the human mind and personality, the development of which becomes, in consequence, either pointless or a mere means to some ulterior end which, again, can never be objectively formulated or identified. Horkheimer points out that the human person is itself (and especially, we may add, for empiricist philosophy) a part of nature, so that the subjugation of nature includes the subjugation of self—the repression of natural impulse in the interests of a scientific and industrial civilization. But as the self has no formulable end, "control of nature" (human or external) becomes an end in itself; and this is self-defeating and unsatisfying. The domination and suppression of natural impulse has no rational pretext and is resented, so that a revolt against civilized forms is generated, marked by a return to savagery, as was witnessed in the Nazism of the 1930's. This revolt, however, is complicated by its use of the techniques of civilization—the techniques of domination—and formalized, instrumental reason gives the new savagery a diabolical rationality and scientific skill.

"The machine," writes Horkheimer, "has dropped its driver; it is racing blindly into space."[2] Individuality is lost in and bulldozed by mass organization and mass production. Life is dominated by mass culture and imitation supplants creative effort. Modern total organizations, he maintains, become (in the nature of the case) divorced from spiritual values (which are despised as illusory) and individual capacities are reduced to mechanical functions. Efficiency, effort, dynamism are worshipped for their own sakes, and no objective is conceived for them to aim at. So that the Red Queen's remark to Alice has special application, that it takes all the running you can do to stay in the same place.

We have found, therefore, that while the demand for objectivity is not met the denial of it leads to even worse disaster, and we are caught in a dilemma in which we cannot rest. What is the remedy for this situation? Dr. Horkheimer calls for a new philosophy—not just a futile return to older doctrines like Thomism; or a dogmatic repudiation of dogma, like Positivism, but a real continuation of the specu-

[1] *The Eclipse of Reason* (O.U.P., New York, 1947) [2] Ibid., p. 128.

lative tradition of the past, the metaphysical systems of which, whatever their faults, were at least an appreciation of the necessity, if we are to retain sanity and avoid self-destruction, for a kind of reason that is objective in the sense that it can define "the objective goals of society."[1] He demands a new critique of reason which will, without glossing over the antithesis of subjective and objective, find some way of reconciling them. "The two concepts of reason," he says, "do not represent two separate and independent ways of mind, although their opposition expresses a real antinomy."[2] It is obviously impossible for me to embark upon any such ambitious attempt in this lecture, but I shall try to indicate some lines of approach to what might be a satisfactory solution of the problem of objectivity.

IV. The Requirements of Objectivity

In each of the theories we have examined and rejected above, there is nevertheless some partial truth. There can be no standard independent of human experience, yet without a criterion that is in *some* sense objective there is no possibility of judgement. The question to decide is, In *what* sense is the standard objective?

When we demand objectivity in any field of investigation there are certain things that we wish to avoid and others that we are trying to ensure. We seek a concept or a theory which is not constantly liable to change with circumstances or with persons, but has a measure of stability despite such changes. It must be independent of personal likes and dislikes and of idiosyncratic tendencies. In other words, its truth or validity must be universal and necessary.

Feelings and emotions do not fulfil these requirements, nor do the deliverances of sense or flashes of intuition; but we do accept as stable and reliable a body of knowledge which has grown up systematically and steadily in the course of experience, and which consists of elements so related that they mutually support and confirm one another. Such a body of knowledge is subjective, no doubt, in the sense that it is somebody's experience (though it need not be, usually is not, and probably cannot be, confined to one person). But it is also objective in the sense that it cannot be easily upset. Just as it is not something immediately or casually acquired, so no single observation or casual experience is, by itself, enough to overthrow it. Such a body of knowledge is never, all at once, present to the mind of the person judging, but its parts are so intimately connected and interdependent, that they colour one another and the whole is implicitly brought to bear upon every relevant particular case in which judgement is called for. Such judgement, in consequence, is neither purely empirical nor the product of pure reason; it is both. It is empirical so far as it pre-

[1] *The Eclipse of Reason*, p. 175. [2] Ibid., p. 174.

supposes a systematic body of knowledge built up in experience. It is also rational because that body of knowledge can only function as an objective standard in so far as its elements are rationally ordered and systematically interrelated. For our reason is nothing more nor less than that capacity or principle operative in the mind which co-ordinates, interrelates and systematizes our experience. There is no department of human experience where this build-up of an integrated body of knowledge or conduct, providing the standard of judgement in particular situations, might not be illustrated, but I shall cite examples from only three fields, each of special importance.

(1) The first comes from physical science, and as I cannot here claim any authority of my own, I must rely on the testimony of those who can. My witnesses are to be Albert Einstein, Max Planck and Sir Arthur Eddington. It has been argued that the modern developments in physics have forced scientists to abandon objective standards,[1] but neither Planck nor Einstein accepts such a view. Einstein's opinion is recorded by James Murphy, as follows:

"I believe that events in nature are controlled by a much stricter and more closely binding law than we suspect to-day, when we speak of one event being the cause of another. Our concept here is confined to one happening within one time-section. It is dissected from the whole process. Our present rough way of applying the causal principle is quite superficial. We are like a child who judges a poem by the rhyme and knows nothing of the rhythmic pattern. Or we are like a juvenile learner at the piano, just relating one note to that which immediately precedes or follows. To an extent this may be very well when one is dealing with very simple and primitive compositions; but it will not do for the interpretation of a Bach fugue. Quantum physics has presented us with very complex processes and to meet them we must further enlarge and refine our concept of causality."[2]

The strong suggestion here of a complex system in the light of which we judge is carried further by Planck. The idea of causality, he maintains, conceived as a relation between local, isolable events, has been transformed into one which involves a total physical system not divisible into separate events.[3] We cannot, therefore, discover the laws of physics by more and more minute analysis, but only by conceiving the physical universe as a single system and by attending to the structural interrelation of its parts.[4] But this single system is nothing barely given in sense, nor merely deduced by *a priori* thinking, but is a "world-picture" constructed by the scientist in the

[1] E.g. by T. D. Weldon, *The Vocabulary of Politics* (Harmondsworth, 1953), p. 30 ff.

[2] Max Planck, *Where is Science Going?* (London, 1933), Epilogue, pp. 203–4.

[3] Cf. *The Universe in the Light of Modern Physics* (London, 1931) pp. 23–6.

[4] Cf. *The Philosophy of Physics* (London, 1936), p. 33.

arduous course of his researches, not only experimental but also by way of speculative interpretation and imaginative construction satisfying the demand of logical coherence.[1]

Eddington, from a somewhat different angle, corroborates this conception of physical truth (or reality) as a structure of facts and events satisfying a standard of internal coherence. "The external world of physics," he writes, "is thus a symposium of the worlds presented to different view-points. There is general agreement as to the principles on which the symposium should be formed . . . Assuming that the symposium has been correctly carried out, the external world and all that appears in it are called real without further ado. When we (scientists) assert of anything in the external world that it is real and that it exists, we are expressing our belief that the rules of the symposium have been correctly applied—that it is not a false concept introduced by an error in the process of synthesis, or a hallucination belonging to one individual consciousness, or an incomplete representation which embraces certain view-points, but conflicts with others."[2]

The objective criterion of physical truth, therefore, is the total systematic body of physical knowledge built up in the course of the progress of the science. There is no ideal archetype of such knowledge to which the scientist can refer, nor can mere armchair ratiocination provide him with a standard. Yet he is not abandoned to the whims and fancies of his imagination. Experience provides him with his criterion, but it is not bare sense-experience uninformed by thought. It is the whole rationally systematized body of scientific experience—the total world-picture that scientific evidence has so far provided.[3]

(2) Collingwood gave an even clearer account of the criterion of historical truth.[4] There is no infallible authority, he emphatically asserts, to which the historian can refer. All "authorities" are themselves subject, and must be subjected, to criticism. And the "authorities" to be examined are not only the writings of other historians, but documents, inscriptions, archaeological remains and everything else that can rank as historical evidence. None of these may be accepted on its face value, for each of them itself raises an historical problem as to its authenticity. This can be tested only in the light of historical knowledge itself, which, Collingwood maintains, is never given to us ready-made. It is an imaginative reconstruction of the past, which is at the same time a logical (or rational) reconstruction—he calls it the work of the *a priori* imagination, to indicate that though imaginative

[1] Cf. *Where is Science Going?* Ch. III, esp. pp. 85–6, 88, 92–5.

[2] *The Nature of the Physical World* (Cambridge, 1933), pp. 284–5.

[3] A similar account of biological knowledge is given by Dr. Agnes Arber, *op. cit.*, pp. 28–9.

[4] Vide *The Idea of History* (Oxford, 1946), p. 238 ff.

it is in no way arbitrary. And this idea or picture of the past is constantly augmented, corrected and made more complete by criticizing, comparing and systematizing the evidence. Strictly, therefore, history has neither authorities nor data, all its evidence must be treated critically and it can be criticized only in the light of the total conception of the past—the body of historical knowledge—built up in the course of the historian's researches. "It is thus the historian's picture of the past," says Collingwood, "the product of his own *a priori* imagination, that has to justify the sources used in its construction. These sources are sources, that is to say credence is given to them, only because they are in this way justified . . . The critical historian has to discover and correct all . . . kinds of falsification. He does it and can only do it, by considering whether the picture of the past to which the evidence leads him, is a coherent and continuous picture, one which makes sense."[1]

(3) My third example is the account of the moral life and the moral criterion developed by Professor A. Macbeath in his Gifford Lectures; an account which he is able to support by the detailed descriptions of the manner of life of a number of diverse peoples given in the work of modern anthropologists. Neither rules nor ends taken in isolation, he maintains, provide the criteria for moral judgements. They themselves can be valued and are referable to a standard which they do not, taken singly, provide. This standard is a complete way of life—a structure of ends and means, dictated in part by personal needs and desires, in part by the needs and desires of others and the requirements of social co-operation. These are not mutually independent and they require mutual adjustment and regulation if they are to be compatible, and if lasting or adequate satisfaction is to be achieved. The regulation and organization of desires is twofold. On the one hand, we grade satisfactions in an order of importance when our desires conflict, and some are subordinated to others; and, on the other, as all, even of those which are mutually compatible, cannot be satisfied at once, they are set in an order of temporal priority. Again, seeing that none of our needs can be adequately supplied except through social co-operation, and that we have (apart from this fact) social needs of a psychological character, our actions and desires must be adjusted to those of other people, and the organization of life becomes, by this circumstance, highly complex. So there emerges a way of life of a people, which in practice is found to be the most completely satisfying that their circumstances (including their knowledge and beliefs about themselves and their environment) allow. It is by reference to this organized system of life, with its interdependent rules and ends, duties and services, customs and institutions, that moral appraisal is made. Macbeath

[1] *The Idea of History*, p. 245.

sums up the position thus: "When we consider the ends which men pursue, to discover which of them are really good, we find that we have to consider these ends, which have their origin in man's needs and the desires to which these needs give rise, as parts of a system of ends, in which not only the ends of the individual but those of other individuals as well, are so integrated that they can find realization consistently with one another. Only ends which fit into the structure of this system are really desirable; and they are desirable only in the form in which they fit into it. So that we cannot discover which ends are good without taking account of the structural pattern of the form of life in which they are realized . . ."[1]

While the details of this structural pattern vary with differing culture, Macbeath claims to find a common general form in all patterns he examines, and he asserts that certain universal features are revealed in the anthropologists' descriptions, which are rooted in human nature and are not relative to cultural conditions. It is thus possible to find in the coherent structure of a society a standard of moral judgement which is both objective for the people who apply it, and yet relative to their knowledge and social experience, and one which at the same time contains the seeds of a universal moral standard.

On the evidence of the foregoing examples, we may, in conclusion, accept the definition of rational conduct given by Professor Michael Oakshott as "acting in such a way that the coherence of the activity to which the conduct belongs is preserved and possibly enhanced."[2] This proves to be applicable to every sphere of intelligent activity, theoretical and practical, and it gives us a sense of "rational" that enables us to find in reason a standard that can satisfy the requirements of objectivity.

University of Witwatersrand.

[1] *Experiments in Living* (London, 1952), p. 49.
[2] Vide *The Cambridge Journal*, Vol. IV, 1950–1, p. 20.

DISCUSSION:

LOGIC AND PHILOSOPHY

I wish to offer some comments on the extent to which the methods of Linguistic Analysis and of Logical Positivism have been reflected in your Journal during recent years. These methods have, within their limits, been established, proved fruitful and deserve respect. Nevertheless I get the impression that more and better results are expected from them than, in the nature of things, they can give.

There seems to be an assumption that if we could develop a language in which each word is given a precise and definite meaning,—approximating in precision and definiteness to the meaning of a symbol used in mathematics,—the philosophers would have at their disposal an additional and powerful weapon. That is an assumption I want to question.

Language has been developed by men as one of the means by which they can communicate their thoughts and feelings to each other. Many of these thoughts and feelings do not admit of precise definition. They vary in form and in feeling tone from day to day in the case of the same person, and from person to person in any given social group.

Let us, for the purpose of this essay, call the forms in which particular thoughts and feelings are present in the mind by the name of "concepts" and assume that, so far as language meets the needs of communication, there is a word for each concept.

Some of these concepts refer to things that are visible, tangible or otherwise capable of being perceived precisely by normal persons. The words referring to these concepts can be defined exactly, and their correct use in any given context may convey the same meaning to every hearer or reader.

As the concepts become more subtle and less "sensible" it becomes more difficult to represent them by words that will mean the same things to different people.

There is a class of concepts in which this is true to an exceptional degree. These are our concepts of values and qualities of experience. Examples are goodness, truth, beauty, conscious, unconscious, being, wisdom, power, justice, success, honour, freedom, faith, courage. These are the concepts by which people live. They determine the ends towards which a man's energies will be directed. There are many difficulties in discussing these concepts effectively and rationally by means of spoken or written language.

A particular concept is seldom, if ever, clearly and compactly organized in the mind. It is moderately clear at the centre, but shades off into a hinterland of vague knowledge and feeling which is ill defined and which contains parts that drift in and out of consciousness according to the occasion which evokes them.

The qualities of the concept are to some extent unique. They cannot be described by likening them to something else which they exactly resemble. The difficulty is like that which would be experienced in describing the colour violet to one who has never seen it.

The concept is liable to change its form in the mind of the same individual for reasons such as a change of mood, increased knowledge and experience, the mental development that comes with the years, or the effect of prolonged contemplation.

Not only does the concept as it exists in the mind of one man alter from time to time. It alters also from man to man at the same time.

There is a general tendency for the average content of a concept to alter from generation to generation as the result of social and cultural changes. For example the content of the concept signified by the word "justice" has altered continuously throughout the historical period.

If words were to be used with as much precision and stability of meaning as is necessary in the use of mathematical symbols I think the number of words required and the speed with which they would grow obsolete would create an insoluble problem. I suspect that certain fundamental changes in our inherited mental structure and thought forms would also be necessary. I think language does not work that way and it is not necessary to discuss the imaginary problem.

I suppose men of a sort have been using words of a sort for, maybe, a million years. Throughout most of that time, it seems that language was used mainly for evocative purposes. Modern languages are more complex and can be used in a greater variety of ways, so we are inclined to forget or to overlook the fact that the main function of language continues to be evocative. This is,—in different degrees,—as true among scientists and philosophers as it is among simple people. Language is one of the means of communication among people. What it has to communicate is experience, emotional, intellectual or both, and nothing else. Words may be spoken orally or they may be written or printed. They may be stored in volumes, and sold in the market as merchandise. In whatever form they are used they remain dead unless they can create in the mind of the hearer or reader an experience which is in some way (not always the same way) analogous to the experience in the mind of the author when he wrote them. The recipient may accept or reject the kind of experience suggested to him, but it is the experience he judges.

During the many thousands of years that men have been using words, the highly developed languages have become surprisingly adaptable. The same words have become capable of carrying a surprising variety of meanings and shades of meaning. The skilled practitioner can use them with the precision and detachment necessary in logic, or he can blend them in patterns in such a way that the separate word meanings merge into and qualify each other, so that a more subtle and complex meaning can be carried by the pattern as a whole.

The philosopher who wants to discuss the experience of living is generally able to find, or invent, language suitable for his purpose.

It is not possible for a man to look at life as an observer standing outside that which he studies. He is himself an innate organic part of it. The subjective and the objective cannot be separated in experience. No one has been able to draw a satisfying line of demarcation between the being of the individual and the being of the total environment (material, intellectual and spiritual) to which he responds consciously and unconsciously.

In the constantly changing incidents of experience that constitute the total experience of the individual there is one thing that remains constant. That is his identity with his consciousness of that identity and an innate necessity to behave actively and passively in his encounter with phenomena, in a way that will preserve that identity as an individual being, and if possible, extend and develop it.

It is from this experience on the part of countless individuals that concepts of value have arisen. The forms in which they are expressed have grown in depth and clarity with the intellectual progress of the race from prehistoric times. Their significance is in the kind of experience which they reveal rather than in the methods by which people sought to express them at different times and in different places. They carry implications about the nature of human life and of the reality in which it participates.

I quote a paragraph from Einstein and Infield in their book "*The Evolution of Physics*":—

"Science is not just a collection of laws, a catalogue of unrelated parts. It is a creation of the human mind, with its freely invented ideas and concepts. Physical theories try to form a picture of reality, and to establish its connection with the wide world of sense impressions. Thus, the only justification for our mental structure is whether, and in what way, our theories form such a link."

There is an analogous truth in philosophy, though the philosopher's field covers the whole of experience and not only "the wide world of sense impressions."

In dealing with things so intimately connected with the experience of living (which is always passing from the known to the unknown) as value concepts are, logical proofs or finalities of any sort are not to be expected or, I think, desired. It is a hopeful and stimulating, rather than a discouraging, thought that, judging by precedents, many of the theories of modern physics and of modern philosophy will in their turn be superseded or modified in the light of new experience "if men do not give up the quest or grow weary of the toil."

N. McCracken.

NEW BOOKS

Aristotle: the Nicomachean Ethics, translated and introduced by Sir David Ross. (London, Oxford University Press, 1954 (The World's Classics, No. 546). Pp. xxxiv + 284. Price 5s.)

Sir David Ross's version of the *Nicomachean Ethics* first appeared in the Oxford translation of Aristotle in 1925, and immediately became standard. Now, however, it makes a welcome addition to the World's Classics series, prefaced by an introduction in which Sir David summarizes Aristotle's argument and comments briefly upon it. Many of the original footnotes have been retained, and so has the analytical table of contents, which also provides chapter-headings throughout the work. The index, too, has been kept, slightly abbreviated.

The Oxford University Press is to be congratulated on bringing out the *Nicomachean Ethics* in a popular series (and of pocket size too); its enterprise deserves a warm welcome and the best of good wishes, for this is a work which can scarcely fail to illuminate the mind of the intelligent layman who reads it carefully, besides being that one of Aristotle's writings which he can most easily and successfully study without extensive scholarly aids.

D. A. Rees.

The Unconscious Origins of Berkeley's Philosophy. By J. O. Wisdom. (Hogarth Press, 25s.)

Part I of this book is an exposition of Berkeley's philosophy; Part II is an account of his life, and Part III is a series of interpretations, along psycho-analytic lines, of his unconscious motivation.

Dr. Wisdom suggests that there are two ways in which Berkeley's philosophy can be interpreted. According to the traditional account, Berkeley believed that natural objects exist only in so far as they can be perceived by an observer; and it is supposed that he failed to recognise that the arguments which disposed of Matter could be used also to dispose of the Self and God. Dr. Wisdom labels this view "solipsist." According to the second interpretation, which is in the main that of Dr. Luce and Professor Jessop, Berkeley was influenced by Malebranche no less than by Locke, and his main concern was to show that God, not Matter, is the cause of our ideas. This is said to constitute his "considered philosophy"—a philosophy which he never abandoned or modified later in life. Dr. Wisdom accepts the "considered philosophy" as Berkeley's conscious intention, and gives psycho-analytic reasons why, at any rate early in life, Berkeley found this philosophy emotionally satisfying. He suggests also that there are reasons why, in spite of himself, Berkeley sometimes allowed the sceptical and solipsistic trends in his thought to break through.

A psycho-analytic interpretation involves the fitting together of a large number of pieces of information. To summarize the psycho-analytic section of this book without giving supporting evidence would make no sense; and I shall limit myself to indicating by one or two examples the sort of thing that Dr. Wisdom is attempting to do. His key concepts are those of *introjection*, *projection*, *splitting* and *scotomisation*. In psycho-analytic theory there is assumed to be a splitting mechanism, as a result of which the child has phantasies of both "good" and "bad" objects (where "objects" includes e.g. mother, breast, milk, faeces). There may be a strong desire to incorporate (or *introject*) "good"

objects, but "bad" objects constitute a serious danger. Objects that are put outside (or *projected*) are at a safer distance. ("Outside" here appears to mean outside in relation to body-awareness or body-schema.) Scotomisation (literally "darkening over") may be said to indicate the phantasy "If I don't see it it isn't there." The child sets up, as it were, an iron-curtain beyond which all dangerous objects are blotted out. Using these concepts, Dr. Wisdom suggests that for Berkeley *Matter* constitutes the "bad" object (poison, bad faeces), and that this "bad" object had to be projected and then scotomised, while it is God who, by means of "good" faeces, must replace Matter as the cause of the ordered arrangement of our ideas. The general claim is thus that there are psycho-analytic reasons why the "considered philosophy" should be regarded as the correct interpretation. Again, just as *esse percipi* was used to dispose of poisonous substances in the outside world, so the tar-water philosophy was an attempt to be rid of internal poison. Berkeley did not abandon the *esse percipi* philosophy later in life, but it ceased to have the same emotional significance for him; his emotional problem had shifted, and he was concerned with internal rather than external poison. Much else is interpreted, for example, his hostility to deists and mathematicians, his marriage at the age of 43, his Bermuda project, the erasure of his father's name from a document, a curious provision in his will, and so on. Finally Dr. Wisdom offers a theory of psycho-somatic disorder, which, though not clinically established, fits in, so he claims, with what is known of Berkeley's health.

What will the average philosophical reader make of a book of this kind? There are, I think, three questions in particular with which he will have to come to terms. (1) Has psycho-analytic theory the status which Dr. Wisdom claims for it? (2) Does it make sense, even so, to attempt to analyse people of a past age? (3) On the assumption that it does, is it plausible to suppose that Dr. Wisdom's interpretations, or something similar, are the correct ones?

(1) Those who are not prepared to take psycho-analytic theory seriously will, of course, be unconvinced by the whole project. To an ordinary person, certainly, much of its jargon is grotesque and absurd. Informed that "God cemented the world . . . by means of pure faeces" (p. 181) or that the Central Bank advocated in *The Querist* "was the great bowel capable of defecating all the money that was needed" (p.164), the average reader can scarcely be expected to do more than raise his eyebrows. It is not, I think, the *shocking* nature of such interpretations which constitutes the stumbling block, but their failure to strike home or have any emotional significance except in clinical situations. Dr. Wisdom does not *argue* for the truth of psycho-analytic theory, nor does he attempt to sweeten the psycho-analytic pill which the reader is required to swallow. This, however, is not his purpose; and some would say that in any case the pill is not one which ought to be sweetened.

Even the sceptical reader, however, may be convinced by the general notion of Matter as something *dangerous*, which Berkeley had to *shut out*; and those philosophers who say that Berkeley put Matter "behind a metaphysical iron-curtain" may agree that the concept of *scotomisation* could conceivably indicate something of his motivation in doing so. What is certainly unplausible is to suppose that Parts I and II of this book are a serious piece of Berkeleian scholarship, and that Part III, though with the same high standards of lucidity and thoroughness, is simply a curious lapse.

I do not wish to suggest that the theoretical foundations of psycho-analysis are all that they should be. Controlled validation is agreed to present a problem, and it is unfortunately all too true that many clinicians are deplorably insensitive on the question of what constitutes valid evidence. It might even be said that *any* interpretation will fit *any* piece of behaviour if enough use is

made of symbolism and if the fit is loose enough. The magic word "over-determined" allows for the legitimacy of several incompatible interpretations; and their validity seems to be tested less by their correspondence with alleged fact than by the effect which they have on the patient. In spite of these difficulties, however, there is no serious doubt that there is plenty of empirical evidence for *something*.

(2) A historical analysis has difficulties of its own. There is no transference situation, and, as Dr. Wisdom points out, no noting of associations and behaviour during treatment. In Berkeley's case, too, there is little knowledge of early childhood. Dr. Wisdom's claim that his interpretations, being of "a well-recognized clinical type" are not "purely speculative" (p. 3) is not entirely convincing. Admittedly the difficulty is one that applies to all historical reconstruction; but some readers will inevitably be dissatisfied with an enquiry where a decisive experiment is a temporal impossibility and where the only appeal is to the individual verdict of "plausible" or not "plausible."

(3) Clinical evidence shows fairly convincingly that anal phantasies such as those described by Dr. Wisdom do occur; and I do not think that any major objection could be taken to his interpretations on clinical grounds. The chief objection to them, on my view, is that the picture of Berkeley on which they are based seems rather out of proportion. Dr. Wisdom tends to regard Berkeley as a system-builder whose thought was dominated by unconscious phantasy. My own impression is rather different. I would suggest that Berkeley did not think of himself as a system-builder at all, but as an apostle of common sense. One of his main purposes was to attempt to safeguard religious belief by the removal of verbal rubbish; and to say that he had a "metaphysic," as Dr. Wisdom does, seems to me quite misleading. If I am right, it does not follow that Dr. Wisdom's interpretations are necessarily wrong, but they become rather less convincing, and the resultant picture of Berkeley's philosophy has less the "feel" of an anal phantasy. A further point is this. It is not always clear whether Dr. Wisdom intends to be *disparaging* to Berkeley or not. He does not dispute that he was "a really fine character" (p. 227), and agrees in principle that "the analysis of a philosopher does not in itself refute the philosophy" (p. 230). But he also says, "His metaphysic taken as a whole is a fantasy" (p. 3). Possibly the spelling "phantasy" is intended, the p-h indicating the psycho-analytic semi-technical term; but whether this is so or not it seems clear that the word is meant disparagingly, the suggestion being, presumably, that Berkeley was in some way out of touch with the reality situation. It does not, of course, follow that, where behaviour is rational, psycho-analytic explanations are superfluous. Dr. Wisdom agrees that Berkeley's philosophy was a logical development of beliefs current at the time; but this, he maintains, does not preclude us from asking *what it was in Berkeley* that caused him to react to the existing intellectual climate in the way that he did. Nevertheless I think it is correct to say that psycho-analytic explanations are at their most plausible where there are obvious irrationalities. It follows, therefore, that those who are satisfied on independent grounds that Berkeley's philosophy was a curiosity rather than a serious contribution to knowledge are the most likely people to be convinced by Dr. Wisdom; and if they believe, too, that the Bermuda project was a mad adventure rather than practical politics, and that the praises of tar-water were a less than justifiable aberration, the case is all the stronger. Dr. Wisdom evidently *does* believe that Berkeley's philosophy was a curiosity; but for those, like myself, who do not, the argument loses some of its compelling power.

On the question of assessing the book as a whole, my personal view is that Part III, the psycho-analytic section, should be taken seriously no less than

Parts I and II. I do not doubt, in view of present-day clinical knowledge, that Dr. Wisdom's interpretations *could be* right. Whether they actually *are* right is a different matter, and one that is far more uncertain.

T. R. Miles.

The Life of David Hume. By Ernest Campbell Mossner. (Edinburgh: Thomas Nelson & Sons. 1955 (Imprint 1954). Pp. xx + 683. 42s.)

The volume is an impressive one, even externally, for it is in a large format, is both aesthetically and technically very well printed, is illustrated, and has a binding of white buckram lettered in gold. What this handsome vehicle carries is a considerable contribution of learning. The author, Professor of Literature in the University of Texas, has been at work on Hume for nearly twenty years. Some of his findings have been published in about a dozen articles (which deserve to be collected), in an admirable book, *The Forgotten Hume* (1943, New York), and, in collaboration with Professor Klibansky, in *New Letters of David Hume* (1954, Oxford). A specialist in the literature of the eighteenth century, he had already issued a full-length study, *Bishop Butler and the Age of Reason* (1936, New York). He now presents us with what must at once take rank as the standard biography of Hume, one that adds so much new material to Hill Burton's large *Life* (1846) and to Greig's (1931) that from now on no one will be able to write reliably on Hume's personality and activities without consulting it. His many finds among unpublished manuscripts and old periodicals are the result of much searching in Scotland, England, France and America, a searching marked as much by flair as by diligence. As for the presentation, he has handled his mass of material with ease, interpreted it with sympathetic common sense, and expressed himself in a pleasant and unforced style. With this achievement of responsible scholarship he has put students of Hume's life and times heavily in debt to him.

The most remarkable feature of the work being its enrichment and correction of detail, a just review of it in short compass is impossible. The most that can be done is to give some samples of the detail. They may usefully be taken from each of the five sections into which Professor Mossner divides the *Life*.

(1) 1711–44. For the first time we are provided with a genealogical tree of the Humes (Homes) of Ninewells: we knew that David was descended from a Sir Alexander Home who died in 1424, but it is good to have the lineage worked out and graphically displayed. Of David's immediate family there is an evidenced account, down to such revealing details as the amount of his father's rentals. The biographically imporant letter of 1734 to a physician was intended, Mossner believes, not for George Cheyne but for John Arbuthnot (reversing the order of probability held by Hill Burton) and was probably not sent, the presumable reason being that Hume decided to deal with his troubles himself; and since the holograph we know was kept by him to the end of his life, Mossner infers that it was kept as "the symbol of self-mastery"—an acute suggestion, fitting Hume's character perfectly. Of the short stay in Bristol some new bits of information have been unearthed.

(2) 1744–9. The story of the tussle between Hume's supporters and opponents when he was a candidate for the Chair of Ethics at Edinburgh is filled out, and the fact of a defensive pamphlet by him, hitherto unknown and even now known only in its title, is disclosed. The military incursion into Brittany is recounted with circumstantial vividness, one of the new sources being a Hume manuscript in the Pierpont Morgan Library; the French view of the affair is more fully noticed, and Voltaire's scornful passage, which Hill Burton could not locate, is

authenticated. The almost empty page we have had on the visit to Turin is now enlivened with incident. Evidence is produced that Hume's project of a History of England, which his autobiography refers to 1752, goes back to 1745–6.

(3) 1749–63. This was the period, rich in literary production, in which Hume stepped into fame (in 1762, Mossner tells us, Boswell called him "the greatest writer in Britain"). We are now shown that the fame did not begin in France and then travel to Britain, but sprang up spontaneously in both countries—the kind of point that can come only from a close study of sources. Professor Mossner supports Hume's suspicion that the poor sale of the first volume of his *History* was due to resistance by the London booksellers, resentful that the work had been published in Edinburgh. The attempt to have Hume excommunicated by the General Assembly of the Church of Scotland is described at length and with new documentation, and we learn for the first time (so far as I know) that in 1761 Rome placed all his writings on the *Index*.

(4) 1763–9. The Parisian adulation of Hume, apparently well covered by the earlier biographers, is retold with freshness, with new glimpses of the company and temper of the *salons*; there is a straightforward account of Hume's relations with the Comtesse de Boufflers; and some substance is at long last given to his work at the Embassy. A few things are added to the little we have known about his spell in London as Under-Secretary of State, his own summary of which was that he had "from a philosopher degenerated into a petty statesman."

(5) The final period is handled briefly and with restraint. I can only take from it one of the stories with which the book is sprinkled. Hume was in church with Lady Elizabeth Hamilton. The preacher announced his subject as scepticism. "That's at you, Mr. Hume," she whispered. Towards the end the preacher said he would now address himself to the chief of sinners. Hume seized the opportunity: "That's at your Ladyship."

Having set himself to write a Life, and having so much new matter to bring, the author has refrained from saying more than the minimum about Hume's philosophy (on which his general comment is very perceptive—that its originality lies neither in its empiricism nor in its ethical emphasis on "sentiment," but in its making "sentiment" the basis also of all inferential knowledge of matters of fact). He does give, however, some new information about what may be called its bio-bibliographical circumstance. For example, he has brought to light a significant piece of Hume's early reading, a copy (now in the U.S.A.) of Shaftesbury's *Characteristics* inscribed "Da: Hume. 1726," and is able to show that before writing the *Treatise* Hume was reading not only the congenial Bayle but also Fénelon, Cudworth, and Wm. King's *De Origine Mali* in Law's English translation, which contained the dissertation by John Gay that started Hartley on his associationism. Further, Professor Mossner has discovered three Continental reviews of 1739 of the first two volumes of the *Treatise*, three of 1740, an English critique of it also of 1740, and a Continental review of 1741 of the third volume (hitherto we have been aware of only a single review, English of 1739). He has also found that the *Treatise* was being advertised again from 1754 to 1756—an indication of (a) the long storage of unsold copies of the original edition, and (b) the publishers' attempt to take advantage of the reputation which Hume's recent works were acquiring. Another interesting discovery is of an early announcement of the *Abstract* under a title somewhat different from the copies (only three) known to be extant.

The aim of a biography being to reveal the man, Professor Mossner, having gathered so much new material in his hands, was in constant danger of missing that aim. In some of the chapters Hume is, indeed, lost in his *milieu*; but since this certainly needed to be re-explored, and since the author has explored it so

well, he was right in making his discoveries available. He has given us, and has clearly intended to give us, not so much a neat artistic character-study as an ordered body of information, new and old, the new documented and the old checked, which will have to be taken account of by anyone who henceforth attempts to compose a closely knit interpretative biography. Yet, with all his passion for research, Professor Mossner is too interested in Hume, and too schooled in literature, to avoid building up a picture of Hume, and the picture is all the more convincing because it emerges from the massed facts, not from an arbitrary or biased selection of them. At the end Hume stands before us as a man of wide interests, strong emotions, and very varied engagement in practical affairs—not as a pure thinker, as the bloodless author of certain philosophical propositions. He stands before us too as a very likeable man; also as a man who was dominantly moral in his concerns about public matters, and of real probity in his own conduct. Are we to continue to say that he had no room for religion? On this question I am not sure that Professor Mossner writes with his usual care; he supposes that the familiar evidence of Hume's public comments on religion is clinched by a reported remark of his that he "never had entertained any belief in religion since he began to read Locke and Clarke." This *could* be read as a typical bit of Humean dissimulation. The possibility might have been discussed (there being fugitive evidence for it), even if in the end dismissed, that his scepticism about God was like his scepticism about many other matters of existence, rejecting not believableness but provableness. In theory he was certainly an agnostic; it is not certain whether he was or was not at heart an atheist.

Among the illustrations the two Allan Ramsay portraits are in colour—the well-known one of 1766, showing Hume in his scarlet and gold Embassy dress, and the less familiar one of 1754, which makes a beautiful frontispiece. An old engraving of Hume with Rousseau is reproduced: it is Professor Mossner's discovery, and in his possession. There is an eighteenth-century print of Ninewells, and Hume's bookplate. The remaining illustrations are mostly portraits of persons who are bound to be mentioned much in any biography of Hume. In this as in the other external aspects the publishers have generously supported their generous author, providing a book that, by current standards, is cheap at the price.

Of the major British philosophers we now have recent scholarly biographies of Berkeley and Hume. It is a reproach that we have nothing corresponding of Hobbes and Locke.

T. E. Jessop.

On Philosophical Style. By Brand Blanshard. (Manchester University Press, 1954. Pp. 69. Price 5s.)

It is probably true to say that in no technical subject do we find more variations in style than in philosophy: Plato has little in common with Aristotle, Descartes and Spinoza are poles apart, both these rationalists differ considerably from any of the English empiricists, and these empiricists in turn show no noticeable linguistic affinity with either Kant or Hegel. Variations, however, since style is the man, are to be expected; and we cannot quarrel with a philosopher unless his style is so disjointed or opaque or incomprehensible as to interpose a veil between us and his thought. It was on the ground of incomprehensibility, as Professor Blanshard points out on his opening page, that Macaulay quarrelled with Kant. "I received to-day," Macaulay wrote,

"a translation of Kant. . . . I tried to read it, but found it utterly unintelligible, just as if it had been written in Sanscrit . . . . I can understand Locke, and Berkeley, and Hume, and Reid, and Stewart. I can understand Cicero's Academics, and most of Plato; and it seems odd that in a book on the elements of metaphysics . . . I should not be able to comprehend a word."

Professor Blanshard claims, with justification, that there must be something radically wrong with any philosophy which an intelligent reader, of Macaulay's calibre, finds unintelligible—a philosophy, in fact, which fails to communicate. Few therefore would quarrel with his demand that philosophers should take some pains to achieve, if not elegance, at least lucidity and intelligibility. Yet when we approach the question of philosophical style more closely, certain difficulties appear, "In this matter of style, philosophy is in a difficult position. The trouble is that it belongs to the literature of knowledge, but that people demand of it all the virtues of the literature of power. Philosophizing proper is a purely intellectual enterprise. Its business is to analyse fundamental concepts, such as self, matter, mind, good, truth; to examine fundamental assumptions, such as that all events have causes; and to fit the conclusions together into a coherent view of nature and man's place in it. Now this is an austerely intellectual business. To be sure, philosophy must take account of values, and in the appropriate fields it has much to say of beauty and deformity, of good and evil, and of the issues of religious belief. But it is pledged to discuss these issues with scientific detachment and dispassionateness. Yet in trying to do so the philosopher feels a tension that the scientist seldom has occasion to feel . . . . This tension grows from the double fact that feeling is the life of style, and yet that in philosophy it is generally an impertinence and a danger" (pp. 6–11).

Professor Blanshard has written a book that is timely as it is brief, lucid and nicely interspersed with apposite examples. He analyses with precision and perspicacity the stylistic faults to which philosophers have been, and in some cases still are, addicted; and he shows how they may be avoided. At the same time he recognizes the peculiar difficulties with which any philosopher, who feels strongly about his ideas, is faced. After commenting on the successful techniques of some of the great English stylists—Macaulay, Froude, Carlyle, Hazlitt, Lamb, Ruskin—he goes on as follows: "But consider how impossible all this is in philosophic writing. Philosophy is not an attempt to excite or entertain; it is not an airing of one's prejudices—the philosopher is supposed to have no prejudices; it is not an attempt to tell a story, or paint a picture, or to get anyone to do anything, or to make anyone like this and dislike that. It is, as James said, 'a peculiarly stubborn effort to think clearly,' to find out by thinking what is true" (p. 13). From the very fact that a philosopher is engaged in a different sort of activity from that of novelists, poets or dramatic critics, there follows the reason why his style should be very different from their style. On this point, Blanshard makes an apt comment. "When we turn to look more closely at this craft of philosophic expression, we find to our relief that it is less exacting than the art of the true man of letters. What the philosopher must manage to embody in words is not the whole of him, nor the impulsive and imaginative part of him, but his intellectual part, his ideas and their connections. And his prime object must be to convey these to his readers at the cost of a minimum of effort on their part" (p. 27). Those who think these remarks banal or platitudinous have only to glance through any philosophical periodical to see how much they are needed. The next point discussed is why some philosophers—including not a few modern philosophers—fail to measure up to this apparently easy standard. Blanshard declares that there are many reasons for this failure, and cites in particular the tendency

to excessive generality in statement (for which Hegel scores top marks), the distaste for giving concrete examples and the lack of attention paid to the rhythmical structure of sentences. To this he adds the following significant comment, which all of us might well ponder: "There have been many writers of philosophy in the past, there are many now, who, with great powers and much to say, say it so awkwardly, diffusely and crabbedly, as to turn would-be readers away by their first page. They deserve to be heard and there are many who would like to hear them, but they hobble themselves by supposing that writing philosophy is merely philosophizing aloud" (p. 40). Indeed, this "philosophizing aloud," often without regard to rules of syntax let alone to any stylistic considerations, is one of the defects of much modern philosophy. At the same time—and it is easy to get confused about this point—we must agree with Hazlitt's remark, which Blanshard quotes, that "no style is worth a farthing that is not calculated to be read out, or that is not allied to spirited conversation."

It merely remains to add that Professor Blanshard's book deserves the widest possible audience; for it not only sets forth and analyses what makes for good philosophical style but is itself an excellent example of what good style is.

J. Hartland-Swann.

Descartes: Philosophical Writings. A selection translated and edited by Elizabeth Anscombe and Peter Thomas Geach, with Introduction by Alexandre Koyré. (Nelson, 1954. Pp. 303. Price 12s. 6d.)

The importance of Descartes, as a philosopher for undergraduate study, cannot be overestimated. His lucid and elegant style (which puts him among the great French prose-writers), his cathartic technique and autobiographical approach to the construction of his philosophy, his simple methodology and clearly articulated metaphysical system—all these make him an ideal philosopher for the teacher to expound, the student to appreciate and both to criticize. Add to this the fact that Descartes' "myth" has come under heavy fire in Ryle's *Concept of Mind* and his importance becomes greater still. Yet for the English reader, texts have always been a problem. Ideally, as we know, the *Discourse* should be read in French and the *Meditations* and *Principles* in Latin; but since this generally imposes too heavy a demand on the resources of the average undergraduate, we must rely on translations for normal university purposes. Translations, however, have usually suffered from one of two defects: either they are poorly executed (as in the case of Veitch), or they are, for a student, on the expensive side (as in the case of Haldane and Ross); and those which escape these two defects may suffer from a third: injudicious selection. Any new translation, therefore, may represent a landmark in Cartesian textbooks and deserves the most careful scrutiny.

Let me say at once that the new volume of Descartes' philosophical writings, translated and edited by Miss Anscombe and Mr. Geach, is, both in style and accuracy, a very good translation indeed. There is much to be said for the policy which has guided our two editors. "In translating," they write, "our general principle has been to produce an English version intelligible as it stands, even if this involves some departure from the original, rather than a more literal version that is intelligible only when eked out by footnotes or appendices." This policy is faithfully carried out and the translators are to be congratulated on the high standard they have achieved—and sustained.

Having said this, I now propose to add some notes on the various sections into which the book is divided, a procedure which will enable me to point to certain features which call for criticism of one kind or another.

Introduction

The editors have entrusted the introduction to M. Alexandre Koyré and in my opinion this has not proved an altogether fortunate choice. I have always had the greatest respect for M. Koyré's scholarship; he belongs to that eminent band of French thinkers who have devoted the most painstaking labour to the elucidation of Cartesian texts—setting them in the right historical perspective and demonstrating the relationship of apparently original Cartesian doctrines to their actual mediaeval ancestors. Nevertheless, like so many modern French philosophers, M. Koyré appears to be entirely ignorant of the philosophical developments of the last thirty years, and to such an extent that he has written an entirely uncritical introduction to Descartes' thought. No mention whatever is made of any of the very serious difficulties raised by the major steps in Descartes' arguments—difficulties which were fully appreciated long before linguistic analysis became fashionable—and the reader is led to infer that Descartes' main contentions (concerning innate ideas, the the nature of the *Cogito*, the substantiality of the "self" and so forth), as well as his proofs for the existence of God and the external world, are so sound as to escape criticism. Not even Kant's attack on the Ontological argument receives a mention. Now this sort of facile praise does little service either to Descartes or to his readers. His position as a great philosopher is assured; and M. Koyré might have realized that no criticism can seriously undermine it, any more than criticism can seriously undermine Plato's position. Indeed, criticism is the lifeblood of understanding and the student must be given some indication at least as to what points of doctrine are vulnerable and why they are so. This could easily be done—as it often is done in introductions as long as M. Koyré's (37 pages)—by first giving an exposition of the philosopher's views and then a brief outline of the major points of possible criticism. The teacher can be expected to do the rest.

I think the editors were impressed by the fact that the most scholarly and detailed Cartesian criticism has, understandably enough, come from the pens of Frenchmen; and assumed on that account that a Frenchman should be asked to write an introduction for the benefit of English readers. There may be something to be said for this reasoning, even if it is by no means cogent—and I have no doubt that M. Gilson, for instance, could have written an excellent introduction. But whatever the merits of this argument, the fact remains that M. Koyré's approach leaves much to be desired; and I cannot but think that the two editors could have composed a far more useful introduction themselves.

Bibliography

This is compiled, not by Miss Anscombe and Mr. Geach, but by the General Editor of the Nelson Philosophical Texts. It represents a satisfactory selection on the whole but it does miss out the one book of textual criticism which is vital to any serious Cartesian student capable of understanding French, namely, Etienne Gilson's Commentary on the *Discourse* (Discours de la Méthode, *Texte et Commentaire*). This work, with its detailed and illuminating notes and cross-references to parallel texts in the *Meditations*, *Principles* and *Regulae*, is the one which, above all others, the student should be encouraged to read. I hope this omission will be remedied in the second edition.

The Philosophical Writings

"Our principle of selection," the editors write, "has been: to include enough material to give an adequate general view of Descartes's system; to exclude details of obsolete scientific theories and theological technicalities." I think this policy has resulted in an admirable selection on the whole, and the reservations which I shall make in a moment will be of a minor order.

The editors start off, in an original manner, with the *Cogitationes privatae*. These "private thoughts," being early notebook jottings, were never published by Descartes himself and we owe their preservation to Leibniz. Nevertheless, they help us to understand some of Descartes' more mature writings, and they also attest to his religious sincerity which has been severely questioned by several critics including Charles Adam and Maxime Leroy (cf. the latter's *Descartes, le philosophe au masque*). Then follows the *Discourse*, translated, as is proper, from the French text of 1637, and making clear, right at the outset, that Descartes was a master of style. My only criticism here is that for some reason the editors have omitted Descartes' prefatory remarks which only occupy 16 lines in the original French text. Since these few lines sum up what the *Discourse* is about, they deserve to be included.

After the *Discourse* come the *Meditations*, translated, wisely enough, from the Latin text of 1642. But here too there is an initial omission: the Dedication, the Preface to the Reader and the Synopsis—all of which reveal interesting facets of Descartes' philosophic orientation. On the other hand, I would not care to press this point too strongly since the editors were no doubt restricted as to space. Still, it might have been better to cut down on some of the Letters, published at the end, rather than omit the Dedication and the Synopsis. Incidentally, the editors are to be congratulated on their short, occasional and wholly judicious footnotes—particularly where these explain some of the mediaeval jargon which, for want of anything better, Descartes took over and used.

The editors publish next the Third Set of Objections and Replies; and since Hobbes was the objector, these are of especial interest to the English student. It is to be regretted that no space could be found for the Appendix to the Second Replies where, *inter alia*, the Ontological argument, which sprawls its way through *Med.* V, is presented in syllogistic form. Students can benefit from comparing the two versions.

In the next section follow the *Regulae*, judiciously cut. Though never published by Descartes himself (they were an early work), they give us many clues for interpreting his later writings as well as amplifying the methodology of the *Discourse*. They are therefore very valuable for the student. My only criticism here is that Rule VI, except for the short introductory paragraph, is omitted entirely, although Rule XII is given *in extenso*. Now it is precisely in Rules VI and XII that Descartes introduces his doctrine of "simple natures,"[1] never again referred to by that name in any of his published works. I have myself argued elsewhere that we do well to give this inconsistent doctrine a wide berth; but since many Cartesian critics, English as well as French, regard the doctrine as central to Descartes' thought, and since the second part of it (which appears in Rule XII) is reproduced, the first part (which appears in Rule VI) should be reproduced as well.

After the *Regulae* come extracts from the *Principles*. Ideally, it is desirable for the student to read the whole of Part I of the *Principles*, since this represents an austere and incisive version of the *Meditations* and deals, in addition, with several important points not so far discussed. However, since limits must be

[1] In an article entitled "Descartes' 'Simple Natures'" (*Philosophy*, Vol. XXII, No. 82 July, 1947).

set to the length of a popular textbook, I am not disposed to quarrel with the editors' policy to reproduce only those passages which "supply further exposition and development of the ideas of the *Meditations*"—even though 48 Principles are thereby omitted. So far as the extracts from Parts II, III and IV are concerned, all these are admirable; they give the student an insight into Descartes' scientific views and illustrate his overriding preoccupation with physics, for which metaphysics is merely a preparation and a necessary foundation.

The editors next give us some skilfully selected passages from the *Dioptrics*. These passages are extremely valuable since they present Descartes' theory of vision, a theory which was later to be attacked by Berkeley in his *New Theory of Vision*. The remainder of the book is occupied by a selection from Descartes' letters (37 pages) and two Appendices (5 pages). The letters, which were selected by the General Editor, indicate Descartes' views on various philosophical matters and, though useful in their way, might well be condensed or even (with the exception of the correspondence with Princess Elizabeth on the relation of the soul and body) eliminated. This last suggestion may sound somewhat drastic to the editors, but the space saved could profitably be devoted to a selection from the First Part of the *Passions of the Soul* where Descartes' interaction theory, together with his general psychology, are clearly and incisively set forth. Appendix I gives, in 3 pages, some useful elucidation of the *Cogito* and includes a short extract from Descartes' very important letter to the Marquis of Newcastle. It is a pity that the blank space on p. 301 is not partially reduced by the inclusion of that vital earlier paragraph in the Newcastle letter which begins "La connaissance intuitive est une illustration de l'esprit." There is a similar and more important omission in Appendix II (On Innate Ideas), which reproduces part of Descartes' reply to Regius' "Programme." One further paragraph, which could conveniently fill the blank space on p. 303, would indicate the extreme form of innatism to which Descartes committed himself in his later years.

Lastly I have two minor complaints, of a general nature, to register. First, I would prefer to see the possessive case of the philosopher's name written as "Descartes' " rather than "Descartes's" (which is not euphonious); second, it would have been useful for the student if the editors had been able to provide an Index, or better some Indices. I should like to emphasize, however, that these complaints, together with the criticisms I have felt impelled to make, must not be allowed to cast doubts on the general excellence of the work taken as a whole. It can be safely recommended to all students who, for whatever reason, are unable to tackle the original texts in the Adam-Tannery edition. And the price of 12s. 6d. must rank as reasonable in this post-war book world.

J. HARTLAND–SWANN.

The Question of Jean-Jacques Rousseau. By ERNST CASSIRER. Translated and edited with an introduction and additional notes by PETER GAY. (Columbia University Press, 1954. Pp. 129. Price $2.75.)

Cassirer's essay on Rousseau first appeared in German in 1932 and in Italian in 1938, but this is the first time that it has been published in English. It is a frequently debatable but invariably stimulating example of interpretative criticism. The introduction and translation by Mr. Gay both serve their purpose very well; and the book is pleasantly produced.

In Cassirer's view, Rousseau was a man with a fundamentally coherent and

powerful world-view, whose relatively unimportant failures to express himself clearly are alone responsible for his reputation as a writer of wild, if inspiring, contradictions. This world-view was, moreover, "the most categorical form of a pure ethics of obligation that was established before Kant" (p. 96). Law, freedom and will, even a rational will, are among its key concepts. To say that man is naturally good or that he is born free is to say nothing about his earliest historical origins; it is a denial of any version of the doctrine of original sin together with an affirmation of man's essential perfectability. (In this Rousseau is perhaps rather more optimistic than Kant.) The responsibility for the development of his potentialities lies not on God but on himself and not on the isolated individual but on political society. Present society, indeed, is in no condition to initiate its own reform, but there can be no retreat to the liberty of the state of nature; the only hope lies in advance to civil liberty, For this a reformer is needed, a new man educated in such a way as to avoid all contact with a society that could only corrupt him, until he is ready to remake it. For what is wanted is a society where the actions of all are willed in accordance with the universal law—or rather where it is the universal law itself that is willed. Only in the society of pure law can the individual find his highest freedom and morality; the society of the general will or the society that is a kingdom of ends.

There is no doubt that impressive support for this interpretation can be gathered from Rousseau's writings. It is, furthermore, illuminating not only for the light that it sheds on Rousseau, but also for that which it sheds on Kant and perhaps too on his idealist successors. But it is risky to claim that it is not just one but the only authentic interpretation. As Mr. Gay says, "The assiduous search for an intellectual core may sweep away, as insignificant, contradictions which are actually fundamental" (p. 24). Cassirer produces his appearance of inner unity with the aid of a variety of interpretive techniques. He makes, of course, selections; it is the business of any interpreter. Where key terms are ambiguous he is bound to resolve the ambiguities in the direction of his central thesis. Where there remain inescapable contradictions, they are presented as qualifications to the main doctrine, due to some failure of theoretical capability or interest rather than to any unclarity of the real, but ill-formulated, message. Rousseau's own surprising accounts of the origins and unity of his thought are readily accepted as having "an inner truthfulness." And so on. But, of course, there are other possible selections and other places in which the emphases may very plausibly be put.

Nevertheless, the general problems of interpretation that are raised by this essay are very real. It is all very well to smile more or less indulgently at the critics who oppose the "real meaning" of their author to what he often actually said. True, this method may lead to a wide variety of results, all seemingly beyond any possible check. But any form of interpretation involves some modification of language. There must be few who have not at some time been grateful to accept another's version of what they have said as a better rendering of their real intentions; or who have had never to recognize a contradiction in a thesis they have put forward or to sacrifice something as inconsistent with what it is their main purpose to uphold. Problems of meaning can crop up at many levels and not just at those of individual words or sentences. Cassirer's essay will be stimulating not only to those whose primary interest is in Rousseau, but indirectly too to anyone interested in the wider problems of meaning and interpretation and of how and why one version may be recommended as worthier of acceptance than another. Now that it is translated into English it should become as widely known here as it deserves.

ALAN MONTEFIORE.

Ethics. By P. H. Nowell-Smith. (Penguin Books, Ltd., 1954. Pp. 320. Price 3s. 6d.)

(1) Nobody should be misled by the price of this book: it is as long, and qualitatively as substantial, as many more portentous-looking volumes. Nor should it be thought, because the author has made public a lot of good sense which has been current in philosophical circles for some time, that his own original contributions are inconsiderable; we have here a work which, had it been put up in stiff covers and large type, and sold for five times the price, would still have been bought (or at least read) by all serious students of the subject.

Mr. Nowell-Smith is a fox, not a hedgehog; he covers a wide range, and says a great many sensible things rather than a few momentous ones. Indeed, he might be criticized for letting his main contentions get lost in a maze of qualifications. Yet he has a very definite philosophical platform, consisting of two main planks. The first is to defend the traditional conception of moral philosophy as a "practical science" against the proponents of what he calls "theoretical ethics"; the second is to show that our moral principles are not inexplicable data of intuition, but are what they are because of the facts of human nature, its desires and fears. In so far as particular philosophers are mentioned, they are predominantly either black, as Kant, Moore, Prichard, Ross, and Broad, or white, as Aristotle, Hume and Mill. The weapons by which virtue is made to triumph are those of linguistic philosophy at its most sophisticated. The moral words, together with a large gallery of words from the language of moral psychology, are reduced to as much order as is currently allowed to be permissible by means of an elaborate apparatus of logical terms, many of them new.

(2) Let us first consider these weapons. In place of the ordinary terms of logic, "entails," "self-contradictory," "analytic," etc., we are given the two interrelated terms "contextually implies" and "logically odd." We are to say that "a statement *p* contextually implies a statement *q* if anyone who knew the normal conventions of the language would be entitled to infer *q* from *p in the context in which they occur*." This term is illustrated in the following example (p. 81):

> If Jones says "It is raining," Smith is entitled to infer that Jones believes that it is raining, although "Jones believes that it is raining" clearly does not follow logically from "It is raining."

There is an unfortunate ambiguity here. From what does Smith infer that Jones believes that it is raining? From the fact that Jones says "It is raining"? Or from the fact that it is raining? The latter would have to be meant, if the contrast which the author wishes to draw were to be in point. But yet this cannot be the meaning; for by no sort of reasoning can we infer, from the fact that it is raining, that Jones believes that it is. But, on the other hand, from the fact that Jones says "It is raining" Smith cannot, however much he knows about the normal conventions of *language*, infer that Jones believes that it is raining, unless he accepts the further premiss that Jones is speaking sincerely, i.e. that what he says, he believes to be true. And from *this* premiss, in conjunction with the premiss 'Jones says "It is raining," ' it follows *logically* that Jones believes that it is raining; so we seem to have an inference which, with this extra premiss, is a case of logical entailment, but without it just cannot be made at all. We know that a man is not lying, not from "the normal conventions of the language," but from our estimation of his charac-

ter; though, admittedly, if lying exceeded a certain degree of prevalence, language would lose its utility.

> "Logically odd" is illustrated as follows:
> There is clearly no contradiction between "It is raining" and "Jones believes that it isn't raining"; yet it would be logically odd for Jones to say "It is raining, but I don't believe it is."

It must be pointed out that the oddness of the latter statement is as independent of the context in which it is made as is the self-contradictoriness of a self-contradictory statement. Our grounds, therefore, for pronouncing a statement to be logically odd, in the sense in which this statement is logically odd, cannot have anything to do with context (as the author apparently thinks) except in the sense in which even self-contradictoriness cannot be alleged until we know the context, and thus the intention of the speaker.

(3) Nevertheless, though Mr. Nowell-Smith introduces these and other terms in a way which does not make them entirely clear, he uses them to good purpose, and it is to be hoped that those who borrow the terms will be as careful as he is not to put on them more weight than they will bear. They are used in order to set out a classification of words (or, more properly, uses of words) which is to take the place of the common evaluative-descriptive distinction. Instead of this two-fold division, we have three classes: D-words (corresponding roughly to descriptive words in the old terminology), A-words (an intermediate class) and G-words (corresponding roughly to evaluative words). Examples of A-words are "terrifying" and "funny." The logic of these words is understood when we understand what their use in a particular instance contextually implies, which may be one, any or all of a number of different kinds of thing, according to the context. In the case of "terrifying" these are: (*a*) that I, the speaker, am, was or would be terrified (subjective element), (*b*) that someone concerned, e.g. the hearer, would, if suitable circumstances arose, be terrified (predictive element), (*c*) that people like the hearer are usually terrified by this sort of thing (generalizing element), and (*d*) that the thing in question has certain properties which cause the reaction, terror (causal element). The fact that these various elements in the implications of these words play Box and Cox is convincingly shown to be responsible for a lot of the perplexities which logicians have experienced in dealing with this type of word.

But the loosening-up process goes even further. For not only do G-words share many of the characteristics of A-words (in addition to other characteristics peculiar to themselves); and not only is the same word used sometimes as an A-word and sometimes as a G-word (and sometimes as a D-word); but even the same word on the same occasion of its use may play more than one of these roles. A word which does this is aptly called a "Janus-word." It is obvious that by this time Mr. Nowell-Smith is in a position to bypass many vexed ethical controversies. For example, it becomes clear that the objectivist-subjectivist dispute has lasted so long only because the moral words do indeed have, on different occasions and even on the same occasion, the characteristics to which the two contestants draw attention; it is possible for each side, by choosing its examples discerningly, to establish an apparently irrefutable case. The truth is only to be had, both in this dispute, and in that concerning weakness of will, and in many others, by looking Janus square in both (or all) his faces; this feat Mr. Nowell-Smith performs with admirable agility.

(4) It is not clear to me just what he is attacking and what he is defending when he claims to be a champion of the traditional moral philosophy. The

book is called on the cover "A study of the words and concepts that we use for answering practical questions, making decisions, advising, warning and appraising conduct"; and both the book itself, and Professor Ayer's statement of its purpose in his editorial preface, bear out this description. The author is therefore clearly himself doing "theoretical ethics" in one sense; in the terms of Moore's dictum, which he quotes with disapproval, the *direct* object of his book is knowledge and not practice. If the current distinction between ethics and morals be accepted, the book is ethics; the moral words occur in it in mention, not in use, and the things that are said about them (the ethical statements) constitute an ethical *theory*. The traditional moralists, on the other hand, though they also did some ethics in this sense, were predominantly concerned to *use* moral terms in order to make moral judgments; and the ethics were usually introduced only in a (mistaken) attempt to *prove* the truth of the moral judgments. In what he *does*, therefore, Mr. Nowell-Smith is on the side of Moore as against, for example, Plato; he does not even allow himself to do what Moore called "practical ethics" and pursued in the later chapters of *Principia Ethica*. He is the defender of the right of the old moralists to do what they did; but he is their champion, not their imitator.

But it is evident that the kind of "theoretical ethics" which he wishes to attack is rather that which holds that moral judgments themselves are theoretical, i.e. that which "represents moral knowledge as knowledge that a certain object has a certain characteristic" (p. 39). He opposes to this view the view, with which I agree, that "the central activities for which moral language is used are choosing and advising others to choose" (p. 1). And he criticizes most convincingly the errors associated with the former way of putting the matter. But is he right, historically, to represent himself as the defender of tradition? It is more correct, surely, to say that the realization that moral language has an entirely different function from descriptive language is a discovery of our own day, a discovery made by the successors of Moore, and arising directly out of his work. And although many of the older writers (Aristotle, for example, and Hume, and above all Kant, to whom Mr. Nowell-Smith gives insufficient credit) drew a distinction between moral and factual language, they were radically confused about the true nature of the distinction, and, if asked "Is moral knowledge knowledge that a certain object has a certain characteristic?" would in all probability have answered "Yes."

(5) A good deal is done in the book to illuminate the controversy between the deontologists and the teleologists. The author's heart is with the latter, though he concedes that the expression of their views was often confused. Moral principles are not translatable into statements about our purposes or desires, but we would not have the principles that we do have (or indeed any at all) unless we had purposes and desires. We can always ask for a justification of a moral principle in terms of its purpose. At least one reader, while very sympathetic to this approach, was left with a desire for more to be said on the question "What *kind* of justification?" Like Hume, Mr. Nowell-Smith founds morality on human nature; he does not, however, say enough about those crucial moral questions which are posed for us by our power to alter the natures of ourselves and others.

The following questions, among others, are treated lucidly and effectively: the difference between morals and the sciences; the vocabulary of "motives"; egoism and hedonism; the alleged exclusive moral worth of "conscientious action"; punishment; and free will. A number of statements in the book seemed to me inaccurately expressed or even wrong (for example, it is implied on p. 149 that if a statement p entails statements q and r it can only properly

be used in cases where there is a necessary connection between q and r). But these minor errors, if they are errors, do little to diminish the usefulness of what must be judged to be a very thoughtful and stimulating book.

R. M. Hare.

Leibniz. By Ruth Lydia Saw. (Penguin Books, 1954. Pp. 240. Price 2s. 6d.)

Dr. Saw's book is well adapted to the series in which it appears, since it is for the most part intelligible to someone with no previous philosophy. She covers all the main topics—monads, God, space and time, and so on—adequately, deliberately choosing to give her exposition more or less in Leibniz's own language. She does not follow Russell and others who have translated his metaphysics into logic and epistemology, and in her comments she draws on critical philosophy since Leibniz hardly at all. There can be no doubt that this is the best way to introduce Leibniz (for the more sophisticated analyses can only be carried out by a student who is philosophically well equipped) but it leaves Dr. Saw with the problem of how to give Leibniz's very odd metaphysical language enough initial plausibility to command the reader's serious attention. Her way of doing this is to treat metaphysics as the final stage in the ordinary process of resolving the inconsistencies and paradoxes of ordinary experience. "We say things like: That was not a ghost you saw but . . . that was not a solid arch of many different colours you saw standing in the sky but . . . ." And similarly we reach Leibniz's metaphysical doctrine of space by saying "something like: That is not spatial intervals between bodies which you are seeing but . . . ." Metaphysical talk about monads is "speaking in a way which will further no practical end but will provide a description which will be satisfying to those people who cannot be content until they reach a description in which the elements are connected together in a reasonable manner, that is, to the metaphysically minded."

This approach enables Dr. Saw to show very lucidly how some of Leibniz's metaphysical doctrines grew out of non-metaphysical problems. She points out both his inconsistencies and his successes, and her readers will be able to read Leibniz with very much more understanding for having this shown to them in an orderly way. Sooner or later some of them will have to ask themselves whether "more intellectually satisfying" (Dr. Saw's criterion) is a sufficient account of the difference between sets of concepts that we use, a trifle lazily, to describe experience in daily life and even in science, and metaphysical "descriptions" arrived at by harder thinking. Some "metaphysically-minded" people believe that there is a much more radical difference between them than this, though they do not find it easy to say what it is. Anyone who has not first taken Leibniz in Dr. Saw's way is unlikely to grasp the problem at all.

Both for what it does successfully and for what it does not attempt to do, Dr. Saw's *Leibniz* is a commendable addition to the Penguin philosophy books.

Peter Lucas.

Solvable Cases of the Decision Problem. By W. Ackermann. (North-Holland Publishing Company, 1954. Pp. viii + 114. No price stated.)

This is a new volume in the useful series of Studies in Logic published at Amsterdam. As the title suggests, it does not deal with Church's theorem nor yet with the various results given by Tarski in his book on *Undecidable Theories* in the same series, but it presents in an orderly fashion the solutions which have

been found for the decision problem in special cases of the functional calculus of the first order with equality, and shows how some cases can be connected with others by appropriate reduction theorems. The first two chapters contain a clear explanation of the technical terminology required for the argument, but the treatment throughout is mathematical rather than philosophical and does not make easy reading. Unfortunately the publishers have not carried out very satisfactorily the author's request for a revision of his English, and there are some passages where the reader will be lost unless he can guess the underlying German. On pages 26 and 38, for example, "respectively" is used as though it were an equivalent for the German "*respektive.*"

WILLIAM KNEALE.

John Locke. By R. I. AARON. (Clarendon Press, second edition, 1955. Pp. x + 323. Price 25s.)

This is a second edition of the book first published in 1937 and reviewed then in this journal by Dr. Ewing. The book has been reset, an account of Draft C of the *Essay* has been added and the bibliography has been enlarged to include reference to books and articles published since the book first appeared. Otherwise the changes are very small, mainly consisting of footnotes referring to later work and minor corrections and additions.

It is very useful to have again available this account of the life and philosophical thought of Locke by a scholar whose knowledge of his subject is second to none. There is surely no better general discussion of Locke than that contained in this book. But it seems that a number of over-simplifications of Locke's thought remain in this edition which, though no doubt pressed for space, the author is hardly justified in leaving. For example, in the discussion of Locke's doctrine of abstract ideas Aaron speaks (p. 203) of us gaining complex ideas from which we select certain ideas to frame an essence, which is an abstract idea. But according to Locke all complex ideas are made voluntarily by the mind—our complex idea of a horse is itself an abstract idea, not something gained in experience from which abstract ideas are formed. Further, in the same discussion Aaron limits his discussion to ideas of substances and mathematical ideas; both spheres in which Locke thought that our abstract ideas were arbitrary to some degree and had but a nominal essence. No indication is given that simple ideas also are for Locke abstract in general thinking and signify a real essence (*Essay* III iv 2: 'The names of simple ideas and substances, with the abstract ideas in the mind which they immediately signify, . . ; and *Essay* III iv 3: 'The names of simple ideas and modes signify always the real as well as the nominal essence of their species'); for Locke every general word, including such as 'red' and 'sweet,' stands for an abstract idea. It would be an impertinence to suggest that Aaron is unaware of these points; but it needs to be pointed out that readers who are unaware of them could be seriously misled by the book to think of abstract ideas as a separate kind of ideas alongside of the simple and complex ideas. But to anyone who is prepared to read Locke as well as reading Aaron this book will be of the greatest assistance.

J. O. URMSON.

Books also received.

ETIENNE GILSON. *The Unity of Philosophical Experience.* Sheed & Ward. 1955. Pp. (xii) & 340. 16s.

THE VERY REV. W. R. MATTHEWS. *The British Philosopher as Writer.* Presidential Address, The English Association. Oxford University Press. 1955. Pp. 14. 5s.

A. D. Ritchie. *George Berkeley's "Siris."* Annual Philosophical Lecture, Henriette Hertz Trust, British Academy. Oxford University Press. 1955. Pp. 15. 3s. 6d.

Humayun Kabir. *Science, Democracy and Islam*, and other essays. George Allen & Unwin. 1955. Pp. 126. 12s. 6d.

Jean Mouroux. *The Christian Experience*. Sheed & Ward. 1955. Pp. (xi) & 370. 16s.

D. Daiches Raphael. *Moral Judgement*. George Allen & Unwin. 1955. Pp. 224. 16s.

Henry I. Wachtel, introduction by Albert Einstein. *Security for All and Free Enterprise*. Philosophical Library, New York. 1955. Pp. (xi) & 162. $3.00.

H. J. Paton. *The Modern Predicament*. Muirhead Library of Philosophy. George Allen & Unwin. 1955. Pp. 405. 30s.

Daya Krishna. *The Nature of Philosophy*. Prachi Prakashan, Calcutta. 1955. Pp. (iii) & 233. 15s. 6d.

F. C. Copleston. *Aquinas*. Penguin Books. 1955. Pp. 263. 3s. 6d.

Stephen Th. Bornemisza. *The Unified System Concept of Nature*. Vantage Press, Inc., New York. 1955. Pp. (viii) & 137. $3.00.

George Thomson. *The First Philosophers*. Studies in Ancient Greek Society, Vol. II. Lawrence & Wishart. 1955. Pp. 367. 27s. 6d.

A. Cornelius Benjamin. *Operationism*. Blackwell Scientific Publications. 1955. Pp. 154. 30s.

John Macquarrie. *An Existentialist Theology*. S.C.M. Press. 1955. Pp. (xii) & 252. 18s.

Anil Kumar Ray Shaudhuri. *Self and Falsity in Advaita Vedanta*. Progressive Publishers, Calcutta. 1955. Pp. 262. 12s. 6d.

A. N. Prior. *Formal Logic*. Oxford: At the Clarendon Press. 1955. Pp. (ix) & 329. 35s.

Stephen Körner. *Conceptual Thinking*. Cambridge University Press. 1955. Pp. (viii) & 301. 30s.

Paul Edwards. *The Logic of Moral Discourse*. The Free Press, Glencoe, Ill. 1955. Pp. 248. $4.00.

Oliver L. Reiser. *Unified Symbolism for World Understanding in Science*. Semantography Publishing Co., Sydney, N.S.W. 1955. Pp. 52. (Pre-edition: no price given.)

R. B. Braithwaite. *Theory of Games as a Tool for the Moral Philosopher*. Inaugural Lecture by the Knightsbridge Professor of Moral Philosophy, Cambridge. Cambridge University Press. 1955. Pp. 75. 6s.

Waldo Ross. *Inward Solitude*. Ediciones Orion, Mexico. 1954. Pp. 32.

G. E. von Gruneham. *Islam*. Routledge & Kegan Paul. 1955. Pp. 260. 21s.

Ed. by T. D. Jessop and A. A. Luce. *The Works of George Berkeley, Vol. VII*. Thomas Nelson & Sons. 1955. Pp. 389. 30s.

R. K. Kelsall. *Higher Civil Servants in Britain*. Routledge & Kegan Paul. 1955. Pp. (xvi) & 233. 25s.

Leone Vivante. *A Philosophy of Potentiality*. Routledge & Kegan Paul. 1955. Pp. 115. 14s.

Maurice S. Friedman. *Martin Buber: The Life of Dialogue*. Routledge & Kegan Paul. 1955. Pp. (x) & 310. 25s.

Hubert Benoit, foreword by Aldous Huxley. *The Supreme Doctrine*. Routledge & Kegan Paul. 1955. Pp. (xv) & 248. 25s.

K. W. Monsarrat. *On Human Thinking*. Methuen & Co. Ltd. 1955. Pp. 115. 15s.

W. D. Ross. *Aristotelis Fragmenta Selecta.* Oxford University Press. 1955. Pp. (x) & 159. 18s.

Various Authors. Introduction by B. Ifor Evans. *Studies in Communication.* Contributed to the Communication Research Centre, University College, London. Secker & Warburg. 1955. Pp. (vii) & 182. 21s.

Gottfried Martin, translated by P. G. Lucas. *Kant's Metaphysics and Theory of Science.* Manchester University Press. 1955. Pp. (viii) & 218. 21s.

Rudolf Bultmann. *Essays.* S.C.M. Press. 1955. Pp. (xi) & 337. 21s.

Charles Darwin. *Expression of the Emotions in Man and Animals.* Philosophical Library, New York. 1955. Pp. (xi) & 372. $6.00.

Rishabhchand. *The Divine Collaborators.* Sri Aurobindo Ashram, Pondicherry. 1955. Pp. 74. No price given.

C. G. Jung and W. Pauli. *The Interpretation of Nature and the Psyche,* tr. by R. F. C. Hull. Routledge & Kegan Paul. 1955. Pp. 247. 16s.

Various Authors. Ed. by H. Westmann. *Man in His Relationships.* Routledge & Kegan Paul. 1955. Pp. (viii) & 140. 14s.

Carmelo Ottaviano. *Metafisica Dell'Essere Parziale.* Vol. I. Alfredo Rondinella, Naples. 1954. Pp. 833. Lire 3000.

Carmelo Ottaviano. *Metafisica Dell'Essere Parziale.* Vol. II. Alfredo Rondinella, Naples. 1955. Pp. 745. Lire 3000.

Various Authors. *Medioevo e Rinascimento.* Studi in onore di Bruno Nardi. Vol. I. G. C. Sansoni, Florence. Pp. (x) & 462. No price given.

Various Authors. *Medioevo e Rinascimento.* Studi in onore di Bruno Nardi. Vol. II. G. C. Sansoni, Florence. Pp. 463. No price given.

Renata Gradi. *Logica ed Esistenza.* Stab. Tip. Agnesotti, Viterbo. Pp. 125. No price given.

Ugo Spirito. *Significato del Nostro Tempo.* G. C. Sansoni, Florence. 1955. Pp. 342. Lire 1600.

Joachim Kopper. *Die Metaphysik Meister Eckharts eingeleitet durch eine Erörterung der Interpretation.* West-Ost-Verlag, Saarbrücken. 1955. Pp. 137. Frs. 990.

Michael Mandmann. *Philosophische Anthropologie.* Sammlung Goschen. Band 156/156a. Walter de Gruyter & Co. Pp. 266. DM. 4.80.

Arnold Metzger. *Freiheit und Tod.* Max Niemeyer Verlag, Tübingen. 1955. Pp. 290. DM. 16.

Karl Vorlander. *Geschichte der Philosophie.* Vol. I. *Altertum und Mittelalter.* Richard Meiner Verlag in Hamburg. 1955. Pp. (xv) & 433. DM. 11.50.

Karl Vorlander. *Geschichte der Philosophie.* Vol. II. *Die Philosophie der Neuzeit bis Kant.* Richard Meiner Verlag in Hamburg. 1955. Pp. (xiv) & 439. DM. 19.50.

Nicolai Hartmann. *Kleinere Schriften.* Vol. I. Walter de Gruyter & Co. 1955. Pp. 318. DM. 26.

Louis Rougier. *Traité de la Connaissance.* Gauthier-Villars, Paris. 1955. Pp. 450. Frs. 2.200.

Emile Brehier. *Etudes de Philosophie Antique.* Presses Universitaires de France, Paris. 1955. Pp. (xxiv) & 307. No price given.

Jean Pucelle. *Le Temps.* Presses Universitaires de France. 1955. Pp. 105. No price given.

Augustin Sesmat. *Dialectique Hamelin et la Philosophie Chrietienne.* Bloud & Gay, Paris. 1955. Pp. 353. No price given.

Felice Battaglia. *La Valeur dans L'Histoire.* Aubier, Paris. 1955. Pp. 205. No price given.

Jose Ferrater Mora, Hugues Leblanc. *Logica Matemática.* Fondo de Cultura Economica, Buenos Aires. 1955. Pp. 201. No price given.

INSTITUTE NOTES

LECTURES

Special attention is drawn to the Lecture by the President of the Institute, the Rt. Hon. Viscount Samuel, G.C.B., G.B.E., D.Litt., D.C.L., LL.D., which will be given on Tuesday, February 7th, at 6 p.m., at the Assembly Hall, London Institute of Education, Malet Street, W.C.1. All other Lectures will be given at the Institute at 5.30 p.m.

A Course of Three Lectures on "The French Revolution and the Philosophers," by Professor H. B. Acton (Bedford College, London).

Friday, January 20th.	I. "Rousseau and the French Revolution."
Friday, January 27th.	II. "Condorcet and the French Revolution."
Friday, February 3rd.	III. "Hegel and the French Revolution."
Tuesday, February 7th.	At the Assembly Hall, Institute of Education, Malet Street, W.C.1, at 6 p.m. "Philosophy and the Life of the Nation." The Rt. Hon. Viscount Samuel, G.C.B., G.B.E., D.Litt., D.C.L., LL.D.
Friday, February 17th.	"Religion and the Unconscious." Professor H. D. Lewis (King's College, London).
Friday, February 24th.	"Perception." Professor A. J. Ayer (University College, London).
Friday, March 2nd.	"Belief and Action." Professor L. J. Russell (University of Birmingham).
Friday, March 9th.	"The Philosophical Relevance of Religious Experience." The Rev. F. C. Copleston, S.J., M.A. (Heythrop College, Chipping Norton).

OBJECTS OF THE INSTITUTE

The Royal Institute of Philosophy exists to bring leading exponents of various branches of Philosophy into direct contact with the general public, with the purpose of satisfying a need felt by many men and women in every walk of life for greater clearness and comprehensiveness of vision in human affairs.

With this broad educational purpose in view, the Institute—

(1) Provides at suitable times in the day and evening courses of lectures by leading exponents in the more important subjects coming within the scope of Philosophy. All branches of Philosophy are represented—Ethics and Social Philosophy, the Philosophy of Law and of the Sciences, of the Fine Arts and of Religion, as well as Logic and Metaphysics and Psychology.

(2) Issues a quarterly philosophical journal (free to members).

(3) Proposes to form a philosophical library.

(4) Gives guidance and assistance to individuals in their philosophical reading.

(5) Encourages research in Philosophy.

There are Local Centres of the Institute at Bangor, Cardiff, Liverpool, Manchester, Newcastle, Durham, and Sheffield.

Students of philosophy are reminded that they may become Associates of the Institute at a reduced fee of 8s. 6d. per annum, provided they are full-time students studying for a degree or diploma at a university or university college and are not engaged in a gainful occupation. Present or past Members of the Institute are not eligible to become Associates.

Further information and forms of application for membership may be had on application to the Director of Studies at University Hall, 14 Gordon Square, London, W.C.1.

(Suggested)

FORM OF BEQUEST

I bequeath to THE ROYAL INSTITUTE OF PHILOSOPHY the sum of ..... free of duty, to be applied to the purposes of that Institute, and I declare that the receipt of the Honorary Secretary, or other proper officer for the time being of that Institute, shall be sufficient discharge for the same.

CONTENTS

		PAGE
I	REFLECTING ON MORALS JOHN M. HEMS	99
II	MOTIVES AND MOTIVATION R. S. PETERS	117
III	KNOWLEDGE AND FAITH MAUD BODKIN	131
IV	PRINCIPLES OF MORALITY PROFESSOR STEPHEN TOULMIN	142
V	DISCUSSION: ON RETRIBUTION	154
VI	PHILOSOPHICAL SURVEY: PHILOSOPHY IN FRANCE	158
VII	NEW BOOKS	163
VIII	INSTITUTE NOTES	192

CORRIGENDUM

In Dr. Hartland-Swann's review of *Descartes: Philosophical Writings* published in the January 1956 number of the Journal, the reference to the footnote on p. 86 should have been placed against the word "elsewhere" instead of against the word "natures" in the line above.

Printed in Great Britain by
UNWIN BROTHERS LIMITED
WOKING AND LONDON